

May 2016

OLYMPIA BEEKEEPERS



REPORTS, NEWS AND ITEMS OF INTEREST

Honey bees larvae absorb social culture of hive

Washington: [Honey bees](#) are tuned in to the social culture of the hive as larvae, becoming more or less aggressive depending on who raises them, researchers have found.

University of Illinois entomology professor and Carl R Woese Institute for Genomic Biology director Gene Robinson, who led the research with postdoctoral researcher Clare Rittschof and Pennsylvania State University professor Christina Grozinger studied very young bees that were weeks away from adulthood.

"In a previous study, we cross-fostered adult bees from gentle colonies into more aggressive colonies and vice versa, and then we measured their brain gene expression," said Robinson.

"We found that the bees had a complex pattern of gene expression, partly influenced by their own personal genetic identity and partly influenced by the environment of the colony they were living in," Robinson said.

"This led us to wonder when they become so sensitive to their social environment," Robinson said.

In the new study, the researchers again cross-fostered bees, but this time as larvae in order to manipulate the bees' early life experiences. The larvae were from a variety of queens, with sister larvae divided between high- and low-aggression colonies.

The larvae were removed from their foster hives and put into a neutral laboratory environment one day before they emerged as adults.

The researchers tested their aggressiveness by exposing them to an intruder bee. They found that the bees retained the social information they had acquired as larvae.

Those raised in aggressive colonies were 10 to 15 per cent more aggressive than those raised in the gentler colonies.

"Even sisters born of the same queen but reared in different colonies differed in aggression, demonstrating the potency of this environmental effect," Robinson said.

The finding was surprising in part because bee larvae undergo metamorphosis, which radically changes the structure of their bodies and brains.

"It's hard to imagine what elements of the brain are influenced during the larval period that then survive the massive reorganisation of the brain to bias behaviour in this way," Robinson said.

The aggressive honey bees also had more robust immune responses than their gentler counterparts, the team found.

The researchers don't yet know how the social information is being transmitted to the larvae.

They tested whether the bees differed in size, which would suggest that they had been fed differently, but found no size differences between aggressive and gentle bees.

The study was published in the journal *Scientific Reports*.

President's Message

It's May, spring is in full swing and your new bees, if you got them, should be out gathering loads of pollen and starting to grow their colony. Swarm season is upon us; as of this writing I know of two swarm captures so be prepared and make sure Gail Booth has all the information she needs from you if you'd like to be on the swarm list.

(gail30@msn.com) The OBA maintains a dedicated swarm hotline and with our easily-distributable swarm cards containing the information for the public there should be plenty of opportunities to save and procure some bees. It's also a great opportunity to educate the public about swarms.

Two hives were installed at the Washington State Governor's Mansion on April 20th. This collaboration between the OBA and the Department of Enterprise Services at the Capitol has been a very exciting opportunity for the association and for raising awareness of bees. The installation received lots of press and you can find links on our website to media pieces on the project. We were also invited to talk about the new bee residents to guests participating in the garden planting event at the mansion with the planting proceedings portion led by Ed Hume. Interest has been very high and both hives, so far, are doing well, drawing comb with both queens on task. Mrs. Inslee named one of the queens "Bonnie" in honor of her sister and is planning a contest to name the second. We are very grateful to Charles Schaffer, Harvard Robbins, Mann Lake and Mark Emrich for generously donating everything needed for this project.

Two hives were also installed at the Olympia Regional Airport and the Airbee Team, lead by the fearless Roy Manicke, continues to monitor those bees which are also off to a good start. We will continue to keep you updated on both projects.

Dr. Steve Sheppard gave a great presentation last month that included a report on their research based on mushroom extracts effects on bee pathogens. The results have been very promising and more work will be done. He also reminded us that there will be two educational events at WSU in Pullman in June: a queen rearing workshop on June 19th and a "Beekeeping Short Course" on

June 17th and 18th. You can visit their website for more information and links to the registration forms: <http://entomology.wsu.edu/apis/>

Abundant thanks to Phil Yarosz for organizing the outreach table and Maren Anderson, Alex Hudson, Mark Stanley, Amanda Fisher and Norm Ott for staffing it at the Yelm Cinema Earth Week Bee Film Event on April 21st.

We will be conducting an outreach program at the WET Science Center on May 21st in Olympia from 12:00-4:00 pm. If you're interested in being there to talk bees with the guests, please let me know. We've been invited back by the great folks there for the third time and it's been a worthwhile and enjoyable time for the center's guests and the beekeepers. My email is LMPCarl@gmail.com.

Also, if anyone has interest in organizing a team to participate in the East Olympia Elementary all day STEAM event on June 2nd, please let me know. I have not committed us to this event, although we participated last year and the kids (and beekeepers!) loved it. I won't be available that day but can run through the particulars with you if you're interested. We'd need to know as soon as possible.

Megan Asche, a PhD student in Dr. Steve Sheppard's honey bee lab at WSU is collecting samples for the USDA APHIS Bee Pest and Diseases Survey Project, a national survey of honey bee pests and diseases funded by the USDA Animal Plant Health Inspection Service (APHIS). The survey is being conducted in an attempt to document which bee diseases, parasites or pests of honey bees are present and/or likely absent in the U. S.

WSU will be surveying 24 apiaries across WA state. If you are interested in participating and have an apiary with 10 colonies or more, please send me your contact information. Megan and her association will be taking a samples (1/2 a cup of bees from 8 colonies from each apiary) during the week of May 16-20th. Participants will receive a summary of their apiary's test results within the year. Here's a link that provides additional information about the research: <https://beeinformed.org/aphis/>

Dr. Dewey Caron returns for our educational program Monday night and we're excited to welcome him back and learn more about the honey bee research he's currently working on.

Last but not least, abundant thanks to our hard-working and dedicated outgoing club officers: Andrea Broyles, Treasurer; Mary Haynes, Secretary; Jim Rieck, Mentor Chair; Paul Longwell, Librarian and David Bruun, Program Chair. You are all so very much appreciated. We will introduce the new officers at the upcoming meeting.

Looking forward to seeing everyone Monday evening.

Laurie

Secretary's Report

Olympia Beekeepers Association Meeting April 11, 2016

Call to order at 7:04 p.m.

Laurie Pyne sent around the colony loss sheet and encouraged members to sign.

The Secretary minutes for February and March were approved as written.

Treasurer's Report

Savings \$6,464.12

Checking \$ 1,189.31

Welcome new attendees!!

Old Business

Earth Day Week event at Yelm Cinemas will be presenting the bee-focused film "Stung by Climate." They would like Olympia Beekeepers to have a table and participate in a discussion. Volunteers needed. The event is from 4p.m. to 8:30p.m. on Thursday, April 21. Admission to the film is free

Please register your hives!! Link to form is on the OBA website.

Harold Nydigger has donated some items to the club to raffle. They will be available at the May meeting.

Swarm call cards will be available at the front table during the break. Gail Booth has the swarm cell phone, a dedicated OBA line for managing swarm calls. The list of responders is made up based on geographic areas; when a call comes in she matches the location with someone close in the region. If you are on the list and you are called you would need to go ASAP to retrieve the bees. Please be sure and provide updated and accurate contact information to her and include what time of day you are willing to go out on a call. If possible please take a small jar of honey to share with the person who called the swarm line to save the bees.

Mark Emrich asked Gail to detail what happens during a call.

- She gathers information, like where the bees are and how high off the ground they are hanging,
- She calls a volunteer in that area.
- They go!

Olympia Beekeepers will be installing 2 hives at the WA Capitol Mansion grounds. Thank you to Harold Robbins, Mark Emrich, Charles Schaffer and Mann Lake for donation all of the equipment and bees!

New Business

None.

Chair reports

Jim Rieck , Mentor Chair: See Jim during the break if you would like to be a mentor or need a mentor. Jim will be stepping down as Mentor Chair and is looking for a replacement.

Bob Smith, Education Chair: We totally filled the education room this evening! We covered lesson 5. If the room continues to be overflowing with students we may move to the cafeteria with the sound system in May.

OBA Elections for 2016

Running for president: Laurie Pyne

Running for Vice President: Michelle Linehan and Paul Longwell

Mary Haynes was asked if she wanted to submit her name for Secretary and declined. Further discussion ensued and Stephanie Booth was nominated for the Secretary position.

Running for Secretary: Stephanie Booth

Running for Membership Chair: Duane McBride

Running for Education Chair: Robert Smith

Members filled out ballots during the break. Laurie selected two members, not on the board, to count ballots.

Newly Appointed Chairpersons:

Patrice Donovan: Program Chair

Ernie Schmidt: Librarian

Brian Offord: Mentor Chair

Bee Package Orders

Michele Linehan discussed how and when the bee packages would be available. All orders and e-mail will be cross-referenced. The bees will arrive very late on April 19. They will be available for pick up on April 20 at 8:00 a.m. Please let Michele or Duane know if you need a different time to pick up. There will be a demonstration of installation at Michele's. Please park on the street and leave the driveway open. We sold 220 packages.

If you have questions please ask! Don't forget to feed your bees!

Laurie shared a burr comb with eggs for member to see what eggs look like.

Pat Sturgill asked about the EPA's spraying for gypsy moths- will it kill bees? Question given to entomologist, Dr. Steve Sheppard who responded that it does not hurt bees. The spray will be specific to caterpillars but will target all butterfly larvae.

Pat also asked about the Bonneville Power Administration spray West of Olympia at the Summit Lake area under the power lines. Mark Emrich said there was no information. Will follow up again. The sprayers did not notify the county as there is no record of it. Members with questions could call the Environmental Protection Agency.

Program

Dr. Steven Sheppard

Invitation: To All who attend the OBA meetings:

Please consider presenting a short (about 5 minute) show-and-tell topic at an OBA meeting. For example, you may:

- * review a piece of beekeeping equipment you either constructed or purchased
- * recommend a book or video from the club library, or elsewhere
- * describe a new twist on an old process for doing something related to bees
- * show something you, or someone else, made from a hive product (wax, honey, propolis, royal jelly)
- * introduce us to an educational web-resource related to beekeeping
- * talk about something else bee-related that our members would find interesting--Bee Creative! Share your Knowledge, Help make our meetings interesting and useful.

Please contact David to get on the agenda (Davidbruun98@hotmail.com)

Reminder:

Plants, books, seeds, and other artifacts are always appreciated for the meeting raffle.

And, if you have a tasty snack to share, everyone enjoys something sweet.

January:

February:

March:

April: Dr. Sheppard on program status

May: Dr. Caron

June: Plant Expert from WSU

July: TBA

August: TBA

September: Time to renew membership.

October: TBA

November: TBA

December: Christmas Party

Monthly Meetings: held the second Monday of each month.

Place: Chinook Middle School, 4301 6th Ave NE, Lacey, WA

Time: 6:00 pm for Beginning Beekeeper's Certification Program, 7:00 pm for the association meeting. Meetings are held in the Cafeteria. Beekeeping class meets in the central hall Science Room.

Agenda: Each meeting is conducted with old and new business, and a program related to beekeeping. Attendees, if they choose, donate a gift for the raffle table. The Treasurer and Membership Chair sell tickets for \$1.00 and at the break there is refreshments available.