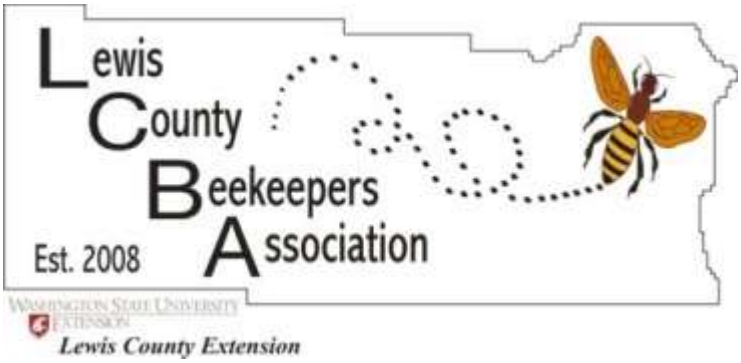

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December 2013 LCBA Newsletter

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Questions? Suggestions? Resources you'd like to share, stories you'd like to tell?

Please contact LCBA Secretary Susanne Weil: susanne.beekeeper@gmail.com or call 360 880 8130.

UPCOMING LCBA EVENTS:

December 11: LCBA's 5th Annual (!) Holiday Potluck. For location & directions, contact LCBA Secretary (see below for contact information).

Social Hour: 6 to 7 p.m.; ~~Feeding Frenzy~~ Dinner & Meeting, 7 - 9 p.m.

Please mark your calendars for LCBA's 5th (!) Annual Holiday Potluck and get ready to share good food, good fellowship, raffle prizes, & after dinner, a brief monthly meeting, including our elections of 2014 officers and our traditional Beekeeping Q&A. We'll give an update on ordering package bees, on our youth scholarship pilot program, and ask your suggestions for 2014 speaker topics. *Our raffles raise funds for youth scholarship program supplies – if you'd like to bring a raffle item, it would be most appreciated!*

Please Bring: A dish of food to share & a plate, cutlery, & cup to eat/drink from. The Grange has tables & chairs, 3 ranges, a refrigerator, & plug-ins for hot pots. LCBA will provide coffee, tea, hot chocolate, & napkins. ***Food Drive:*** *If you'd like to bring canned food or dry goods for the Greater Chehalis Area Food Bank, please do – we'll have a donation box. Every donor to the food drive will receive one free raffle ticket (one per family).*

Questions? Contact Susanne.beekeeper@gmail.com or call 360 880 8130.

January 8: LCBA Monthly Meeting, 7 – 9 p.m., 103 Washington Hall, Centralia College
Social Time 6:30 to 7 – Come Talk Bees!

Topic: Yellowjacket Woes: Friend or Foe?

Speaker: Carl Roush, biology instructor, Lower Columbia College (retired)

Yellowjackets are much maligned for painful stings & stealing our food. Join us for a balanced treatment to include benefits, like preying on insect pests, & the fascination of these highly social insects. We will examine practical ways to coexist, as well as control methods. Seasonal population cycles, larval development, & communication will be touched upon via power point slides, video clips, & sample nest dissections.

Business Meeting: Beekeeping Q&A. Also: monthly raffle.

February 8: Hive Building Workshop {Langstroth hives}

When: Noon to 4 p.m.

Where: Chehalis. For location and directions, email Susanne.beekeeper@gmail.com or call 360 880 8130).

What to bring: woodenware, frames, foundation – and questions! LCBA will provide tools, glue, & screws. If you need woodenware, check the "Beekeeping Supplies" link under "Resources & Links" on our website, or call Susanne (see contact info above). We'll build hive bodies, supers, telescoping covers, and put together frames; we're not making screened bottom boards, as those are complex. Coffee, tea, hot chocolate & snacks will be provided. Attending this workshop is free.

Below, Matt Taylor, Jenn Taylor, & Melanie Case building hive bodies at our 2013 workshop:

February 12: LCBA Monthly Meeting, 7 – 9 p.m., 103 Washington Hall, Centralia College
Social Time 6:30 to 7 – Come Talk Bees!
Topic: TBA

February 22: "Getting Started in Beekeeping" at Gardening For Everyone, 103 Washington Hall, Centralia College ~ Time TBA.

LCBA Secretary Susanne Weil & Past-president Peter Glover will lead this overview of what's involved in beekeeping – time, equipment, costs, rewards, "bee bio 101," & more, including preview of our fall LCBA/WSBA Apprentice class (see below). Free & open to the public – if you have friends interested in starting beekeeping, please let them know!

March 12: LCBA Monthly Meeting, 7 – 9 p.m., 103 Washington Hall, Centralia College
Social Time 6:30 to 7 – Come Talk Bees!
Topic: Zombie Fly Parasitism of Honey Bees ~ University of Washington Research Project

Dr. Evan Sugden and his undergraduate research team – Ashley Powell, Hannah Dayley, & Fiona Kana – will share their work on how zombie flies are affecting honey bees in western Washington, plus information about UW's teaching apiary & ongoing Nosema research. For an overview of Dr. Sugden's "Science with Bees" UW class, see the November 2013 edition of *Bee Culture.*

Business Meeting: Spring management Q&A. Also: monthly raffle.

LCBA's 2014 workshops (dates & places TBA) will include:

Building / Assembling Langstroth Hives

Building Top Bar Hives

Spring Hive Inspections

Making Splits from Local Survivor Bees

Colony Removals from Structures

Inspecting for & Addressing Bee Parasites & Diseases

Removing Honey Supers

Fall Management Issues

Honey Extraction

NOTES FROM LCBA'S November 13th, 2013 MONTHLY MEETING

Movie Night: More Than Honey (2013), Director: Markus Imhoof; Kino Lorber Productions.

About 90 LCBA members packed Washington Hall 103 to watch *More Than Honey*, whose visuals do not disappoint. German director Markus Imhoof delivers spectacular shots of bees in action: from the opening sequence of a queen bee emerging from her cell through the final shot of bees flying so high that they threaten to enter orbit (see above photo), imagery alone makes this film worth viewing.

More Than Honey drives home its message with the subtlety of a sledgehammer, but that message is tough to shrug off. The film juxtaposes Swiss beekeeper Fred Jaggi - who takes tender care handling his bees and tells us that in helping pollinate flowers, "bees are messengers of love" – with commercial beekeeper John Miller, who, watching his bees pollinating almond

blossoms, gloats, "That's the sound of money – fresh printed money." We see Miller stand by as his bees are sprayed with pesticides: he tells the camera how he had asked that spraying be done at night, but was told they could not see (as was noted after the film, evidently these people never heard of lights and GPS technology). Miller, though clearly uncomfortable, doesn't intervene: "it's sort of a Faustian bargain we've made with the almond growers," he comments. Later, Miller boils over with frustration at finding box after box of dead bees, blaming "colony collapse disorder," yet his own operation – in some of the film's most painful footage to watch – handles bees with horrific roughness: we see boxes dragged by machine arms across the tops of frames, crushing mass numbers of bees as they scramble to get out of the way.

Imhoof wants viewers to question whether monocrop agriculture, and the larger multinational system of food production, is sustainable. Bees are presented as the proverbial canaries in the coal mine. Jaggi comments, "my grandfather would say . . . we have lost our relationship with the colony," as everything must be ten times bigger on the global playing field. A haunting sequence shot in China shows laborers hand-pollinating plants in the wake of well-intentioned but ham-handed government intervention. Sparrows took grain from the people, so Mao Zedong ordered millions of the birds killed; predictably, insect populations spiked, and insecticides were deployed to bring them under control; since the insecticides could not discriminate between pests and beneficial insects, bees died: "they died as a result of our success," one character comments.

Sometimes Imhoof's message seems exaggerated: for example, the film quotes the often-invoked Einstein saying that if bees die out, humans would follow within four years. Einstein almost certainly never said this: the *Snopes.com* myth-busting website tags it as urban legend (http://www.snopes.com/quotes/einstein/bees.asp), and no Einstein biography notes it; the *New Quotable Einstein* (2005) says the quote was probably not his, though frequently attributed to him. The "quote" sensationalizes a real problem, but since the film presents it as fact, some skeptics may suspect that the problems *More Than Honey* says bees face may just be hype, too. In retrospect, one wonders whether it could be typical for commercial beekeepers to treat their bees as roughly as the film portrays – a question worth exploring with some of our state's commercial operators, perhaps.

Not all of *More Than Honey* is dogmatic, fortunately. Many fascinating sequences focus on bee behavior and the life of the colony, in which, as one scientist comments, "no one gives commands, yet everyone obeys." Neurobiologist Randolf Menzel provocatively queries whether a colony of bees, as a superorganism, actually is the animal, and individual bees are its organs. The life of swarms is shown, along with amazing footage of the waggle dance. In one astonishing sequence, the camera goes inside a fissure high on a cliff wall to show bees building fresh comb in their new home. In another, a "Noah's Ark" of bees are placed on a remote island off Australia, where Varroa's shadow has yet to fall, in hope of preserving indigenous bees and their genetics.

One fascinating segment showcases Arizona beekeeper Fred Terry, who has learned to live with, and even love, the notorious Africanized honey bee: "These are not lapdogs like the "normal" domestic bees; these are wolves," Terry tells us. "That's why they don't get sick. They are perfect honey bees too. You just need to avoid provoking them…" Terry asserts that not only are the Africanized bees nowhere near as aggressive as hype would have it – provided you know how to handle them – but they do not suffer Varroa infestations. It would be fascinating to investigate whether the Africanized bees really are as hardy as *More Than Honey* suggests.

Post-film discussion: President Norm Switzler led discussion, much of which centered on the question of how sustainable modern agriculture is:

Pesticides: Tom Mayberry commented how surprising it was to see Miller, the almond pollinator, allow his bees to be sprayed; Norm noted that for anyone who has a heart, watching the commercial beekeeping operations in action in this film has to hurt. Gary Gorremans noted that we may make assumptions about pesticides based on this film, yet there are rules: realistically, would any owner of bees stand by not doing anything as trees full of his bees get sprayed? Was that for effect? The applicator left himself open to lawsuits, as well. Why not spray at night? Norm suggested they invest in a GPS and headlights.

The Monocrop Agriculture Debate: Gary Stelzner played devil's advocate, commenting that with over 7 billion people on earth and projected increases, we cannot possibly expect to practice agriculture the way we did to feed a far smaller population in 1900. How, Gary asked, can we feed the coming generations without commercial agriculture? Another member, noting how the Chinese growers were forced to resort to hand pollination of their plum trees, asked: what if they had to do that with almonds? Truly a "Faustian bargain," as the film says. Susanne asked if we as consumers participate in buying products of this kind of agriculture, are we participating in abuse of the bees? Tim Weible pointed out that 1 million, 600 thousand colonies of bees were needed to pollinate California's almonds this year, but that Washington apples were the second high-volume crop that Miller, the commercial beekeeper in the film, said required mass pollination: if we're thinking about boycotting almonds, then we'd better target apples next. Rick Battin commented that 870,000 acres in California are in almonds; Peter Glover noted that because of California's water shortage, the almond acreages cannot proliferate without limit.

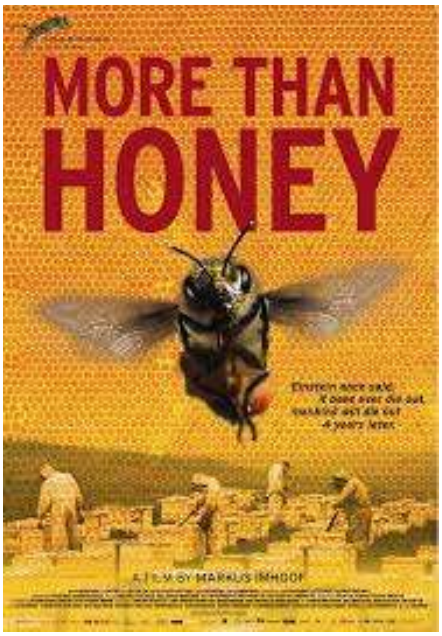
Kent Yates noted that he's in beekeeping because of bees, not because of money – quite the contrary, like many, he's lost money keeping bees – but for him, it's about the connection with bees. Another member commented that while the film emphasizes our loss of connection with bees, it goes beyond bees to encompass animals of agriculture. Beekeepers traditionally are like shepherds –"it's a lot more satisfying than gambling," one member commented. Norm would not risk his bees being exposed to diseases for any profit.

Organic beekeeping doesn't necessarily stave off disease: As Alan Sparling noted, even using a completely natural and organic system, Jaggi, the Swiss beekeeper found foulbrood in his hives and had to burn and bury them. It was noted that perhaps foulbrood entered his operation from outside: after all, he even went so far as to kill his queen to keep foreign genes out and maintain the "purity" of his black bee population. What of commercial operators bringing bees from the California almonds into Lewis County to forage in summer, possibly bringing disease – what can we do? Legally, nothing.

Africanized Bees as the Future? Terrie Phillips asked about the Africanized bees: would beekeepers have greater survival rates keeping them? Norm noted that though Africanized bees have not migrated into our climate – it is too cold and wet for their liking - some of our "hot" feral hives may have some Africanized genetics, given how many packages have been imported from California and later swarmed. Mel and Norm didn't think that the Africanized bees shown in the film were particularly aggressive: Mel told of a very defensive colony of local bees hitting the windows of his pickup truck, so many that his wife had to drive down the road away from them before Mel could open the door and get into the car in his bee suit.

Renzy Davenport has talked to Arizona and New Mexico beekeepers who keep Africanized bees and said they'd never go back to Europeanized bees. His impression is that Africanized bees have a bad reputation because of stories, but that if you just change your methods to be much more careful, they could be rewarding. Susanne asked whether it's been verified that Africanized bees don't have Varroa; Bruce Casaw said they clean themselves better. Renzy also has heard reports that they don't have varroa or tracheal mites, nor Nosema, and also that they are more honey-productive than their reputation. Tomme Trikosko asked whether the bees that Wilma Sofranko is working with in Africa are these Africanized "killer bees"; they are not, though we could not recall the precise species(s) the KiReeCo beekeepers are working with.

Missed "More Than Honey," but want to see it? All felt that this film was thought- provoking. If you would like to see the film – or see the film again – please let Susanne know. The Board is working on organizing alternate showings, hopefully one in Centralia and one in East County, probably in January. Also, the DVD (now they tell us!) just became available for home viewing: visit: http://buy.morethanhoneyfilm.com/.



NOVEMBER BUSINESS MEETING

After our discussion of *More Than Honey*, President Norm Switzler called a short business meeting.

Treasurer's Report: Treasurer Jon Wade reported LCBA's balance, including our scholarship fund.

Youth Scholarship Pilot Program: Secretary Susanne Weil and member Tomme Trikosko gave an update on this program, which our 2013 raffles have been gathering funds to launch. To encourage young people to get involved in beekeeping, LCBA's board plans to outfit two high school students (9^{th} to 11^{th} grades) with basic beekeeping equipment and bees. The students will take WSBA's Apprentice Beekeeping course, each will have an LCBA mentor, and they will attend some meetings and mentor workshops.

The board decided to start small with a manageable pilot program in the Toledo High School district, where Tomme teaches, so that we have local contacts. The first youth scholarship applications will be made available to Toledo students this December; applications will be due early in January, and the winners will be decided by the board quickly enough that they can attend our hive building workshop in February 2014. We will assess the program after the first year and make any needed changes. The 2015 scholarship recipients would be from another school district, with the long term goal of covering a different school district each year. Norm noted that we are trying to put some of our resources back into the community.

About 55 students in Toledo will learn WSBA's apprentice beekeeping curriculum: Tomme and Susanne have been working with WSBA's Education Committee, which approved the program to be embedded in Tomme's biology curriculum in Toledo. This is the first time WSBA has partnered with a high school. Toledo H.S. has raised funds for the WSBA books. Herb Keeling asked whether Future Farmers of America and 4H would be involved: Tomme commented that the national 4H organization doesn't address bees anywhere, though in principle 4H students could choose beekeeping as a project. Susanne noted that Lewis County Extension could connect us with 4H and FFA; the board can look into whether those groups would be interested in beekeeping programs for their members.

Election Update: Susanne reported for the nominating committee that Norm is willing to run for a second term as president, and that Jon is willing to run for a second term as treasurer. Steve Howard, after filling the 2^{nd} year of Brandy DeMelt's term as Membership Coordinator, is stepping down; Tomme Trikosko has accepted nomination to run for that position. All thanked Steve for his work over the past year. Norm noted that if anyone is interested in serving on the board, they should contact VP Dave Gaston (fauxelk@hotmail.com) or Susanne (Susanne.beekeeper@gmail.com or call 360 880 8130).

Proposed Bylaws Change: during our December elections, we'll vote on the following proposal: to change LCBA's dues structure to one flat fee, regardless of when during the year people join the association. The proposal is intended to end members' often-stated confusion about what dues cost and when they are due. The proposed new bylaws language follows, with changes in ***bold italics***; deletions are shown ~~**by strikeouts.**~~ To read LCBA's bylaws in their

entirety, visit our website and click on the PDF link:
http://www.lewiscountybeekeepers.org/officers__bylaws/lcbas_bylaws

LCBA BYLAWS, ARTICLE IV- DUES

Section 1. Upon adoption of these bylaws by a regular meeting of the membership of LCBA, dues will consist of a $10 initiation fee and a yearly membership payment of $24. The LCBA fiscal year runs from January 1, through December 31. ***Members may join LCBA at any time during the calendar year for the flat dues rate of $24 plus $10 initiation fee.*** ~~**will have their dues prorated by $2 per month.**~~ Thereafter, yearly membership dues are to be paid to the Treasurer by the January monthly meeting of each year.

Section 2. At such time that the Board of Directors determines that the dues defined in Article IV, Section 1 no longer meet the financial obligations of LCBA, they shall revise the schedule set in Section 1 and put it before the general membership at the next regular meeting thereof. Two-thirds of the members present must approve the revised dues schedule for Article IV, Section 1 to be changed.

Section 3. Annual dues not paid to the Treasurer by January 31 are considered delinquent ~~**and the member responsible will be dropped from the membership register and thereupon shall forfeit all rights and privileges of membership, including receipt of the Association newsletter.**~~ ***Delinquent members will lose all privileges of membership, including voting and participation in activities that carry membership discounts.***

Section 4. Reinstatement of membership terminated for failure to pay dues is automatic upon receipt of dues in full. ***The initiation fee (Section 1) does not apply to those renewing membership.***

2014 Package Bee Orders: Norm announced that the board is looking into options for 2014 package bee orders: we expect to have an update at the December business meeting. Mel Grigorich asked whether hive registration information for 2014 was available yet; Susanne noted that WSDA has not posted this, but she'll let everyone know as soon as they do and link the information on our website.

Candy Board Update: Mike Helms prepared a PowerPoint titled "Colony Winter Assistance," covering how he made his candy boards, as well as how he assists in moisture control, Norm noted, placing a box filled with cedar chips on top of the candy board to absorb moisture. Unfortunately, we did not have time for Mike's presentation, but his materials – both slideshow and talking points – will be appended to the December newsletter email in PDF and posted on the website. Herb Keeling displayed his own innovation – a top bar candy board panel. Thanks to Mike and Herb for sharing these ways of helping bees over-winter!

Upcoming Events: Susanne reminded everyone that our 5th holiday potluck will be at the Newaukum Grange again this year (see "Upcoming Events," above, for details). Family members and guests are welcome. Our raffle will benefit the youth scholarship program, and there will be a donation box for canned food for the Greater Lewis County Food Bank. Bob Kramer, the Grange manager, is on the food bank board, and as the Grange has not raised its

rates for us to use the hall despite budget cuts, we thought this would be an appropriate way to show appreciation as well as help people in need.

KENYAN BEEKEEPERS – UPDATE

As members may remember, our former member Wilma Sofranko spoke at our February 2013 meeting about beekeeping at KiReeCo, the nonprofit agricultural cooperative that she is developing in Kisii, Kenya [see the Newsletter link on our website for details of her talk]. This summer, LCBA had a raffle and donated funds to help Wilma's group purchase beekeeping educational materials: those funds helped them start keeping bees and selling honey to support education for their children (not public or free in their part of Kenya).

Wilma now reports that "53 of our 58 students took their [apprentice beekeeping] test this past Monday [December 25]. The other 5 will take their test this Monday. They took the test so seriously! 80% of the students got better than 80% correct, and 4 got 100% correct. About half of the tests were in English and half in Ekegusii, the vernacular. We did oral tests for 8 women and one man and all 9 got only 1-3 wrong out of 21 questions. Monday we return and give them certificates of completion of the training.

"They have formed a 'beekeeping club' and meet once a week to learn from each other. They have started a 'merry-go-round' savings scheme in order to help members get the supplies they need, including the metal stands that a local metal smith will produce for them.

"More good news for KiReeCo: We just got news of a donation for a commercial extractor (9 frame) that is available in Nairobi. That will enable us to start an extraction service and earn money to reinvest in the hives for our beekeepers. The lack of this service has been a real bottleneck for small holder farmers who have switched to Langstroth hives."

Wilma will be back in the U.S. this summer and will speak at our August meeting about this Kenyan beekeeping project.

BEES IN THE NEWS

Thanks to Steve Norton, Sarah Roebas, Tomme Trikosko, and Norm Switzler for sending news this month.

"Queen Bee's Honesty Is the Best Policy for Reproduction Signals": *Science Daily*, 13 Nov 2013:

Nationwide, beekeepers have observed that their queens don't last as long as they used to – weeks or months, not years. A new study by scientists from Penn State, North Carolina State, and Tel Aviv University may have found out why: pheromonal signals that queens send to workers give "an honest message about their reproductive status and quality." Through pheromones, queens tell workers not only whether they have been mated, but how well – meaning with how many drones. As earlier studies have shown, "promiscuous" queens bring

greater genetic diversity to their colony, making the colony healthier. If bees can tell that a queen is poorly mated, they can supersede her – and that could explain high queen turnover.

The researchers artificially inseminated queens with varying amounts of semen or saline. Workers responded much more strongly to pheromone extracts from queens that had been inseminated with more semen than less, and even preferred extracts with low semen to those that had saline instead. According to the research team, "these results suggest that queens are signaling detailed and honest information about their mating state and reproductive quality to workers, and workers are capable of adjusting their behavior accordingly." That behavior adjustment can include supersedure, which sets back the colony's development: weeks will pass before a new, laying queen can replenish the forager population, and that assumes that the new queen survives her mating flight.

The study also showed that queen pheromones regulate the rate at which workers mature from nurse to forager: this suggests that if the quality of the queen's pheromones is weaker, the entire colony could be affected, perhaps leading to smaller forager populations. The next step in the study will be to explore "effects of viruses, pesticides and poor nutrition on queen pheromone quality to see if the queen also is providing workers with information about her health . . . the more we know about what affects the queen's health the better chance we will have of creating high-quality queens and disease-resistant stocks of honey bees," the researchers said.

To read more, visit: http://www.sciencedaily.com/releases/2013/11/131113182549.htm?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+sciencedaily+%28ScienceDaily%3A+Latest+Science+News%29. Also, see "Queen bees tell the whole hive about their sexual flings," 14 Nov. 2013, Los Angeles Times: http://www.latimes.com/science/sciencenow/la-sci-sn-queen-bees-sex-20131113,0,5798275.story#axzz2kjKtaKXU

Above, "worker honey bees perform a 'retinue response,' in which they are attracted to the queen (marked with a number tag), surround her, lick her, and 'smell' her with their antennae. This behavior allows the workers to pick up the queen pheromone and spread it throughout the colony. The queen pheromone provides 'honest' information to the workers about her presence, mating status, and mating quality." (Photo: Bernardo Niño, Penn State University)

"Pollinator Protection and the Farm Bill": ***WSBA Newsletter*****, Nov 2013 (20-21):**

H.R. 2642, the Federal Agricultural Reform and Risk Management Act of 2013, contains a specific provision to protect pollinators: Sec. 11315. As of the end of October, 58 organizations had voiced support for this provision, which would "greatly improve federal coordination to address the dramatic decline of managed and native pollinators. In addition, the government would have to regularly monitor and report on the health of pollinators." The bill would require agencies (1) to coordinate better when pollinator health is implicated, (2) form a "USDA task force on bee health and commercial beekeeping," (3) require that federal agencies "provide guidance on issues related to pollinator health," (4) track and report the condition and numbers of not only managed, but native pollinators, and (5) "assess feasibility of new bee research labs."

WSBA asks that those concerned contact Washington's representative on the Farm Bill Conference Committee, Suzan DelBene (202 225 6311), to urge continued support for these protective measures for both managed and native pollinators. To email DelBene, visit http://delbene.house.gov/ .

"Can smart sensors and citizen science save bees?" ***Treehugger.com*****, 13 Nov. 2013:**

Open Source Beehives is working to enlist ordinary "citizen scientists" to help compile a worldwide data bank to help analyze bees' problems and find answers. The Open Source website explains their goal: "to design hives that can support bee colonies in a sustainable way, to monitor and track the health and behaviour of a colony as it develops. Each hive contains an open source sensory kit, The Smart Citizen Kit (SCK), which can transmit to an open data platform: Smartcitizen.me. These sensor enhanced hive designs are open and freely available online, the data collected from each hive is published together with geolocations allowing for a further comparison and analysis of the hives."

To see a video that explains how the project works, visit: http://www.treehugger.com/clean-technology/smart-sensors-citizen-science-save-bees.html.To read more, visit: http://www.treehugger.com/clean-technology/smart-sensors-citizen-science-save-bees.html

(Photo from the Open Source beehive project,© Sean Gallup/Getty Images)

"Meet RoboBee, a bug-sized, bio-inspired flying robot," *Los Angeles Times,* 2 May 2013

Harvard scientists have engineered RoboBee, thought the world's "smallest flying robot," weighing in at 80 milligrams and with a wingspan of 3 centimeters. Why? Researchers said that "such robo-flies could become very useful as tiny search-and-rescue vehicles inside buildings . . . and perhaps even handy to help pollinate plants as colony collapse disorder continues to plague honeybee hives."

Project scientists had to forgo traditional "nuts and bolts" and engineer ways around turbulence. To give RoboBee "muscles, they came up with a tiny piezoelectric actuator -- thin ceramic strips that squeeze when a current is run through them, allowing the aircraft to flap its wings at 120 times per second." They're still working on a way to provide RoboBee with a brain (microchips that tiny don't exist yet) and a power source: "the tiny bugs had to be tethered with tiny power cords and they lasted about 10 to 15 minutes before the hinges on their wings gave out."

To read more, visit: latimes.com/news/science/sciencenow/la-sci-sn-flying-robot-robobee-smallest-ever-20130502,0,5469981.story. To see "Robobee" in action, visit: http://www.latimes.com/news/science/sciencenow/la-sci-sn-flying-robot-robobee-smallest-ever-20130502,0,5469981.story#axzz2kjKtaKXU. Below: screen capture from video:

"The Sacred Hum of Bees" in World Cultures: *Encounter,* 26 Oct 2013.

This Australian public television program (for transcript, see URL below) brought together a group of scientists, anthropologists, and religious philosophers to discuss the significance of honey bees in world cultures and religions. One speaker, Dr. Rod Blackhirst of La Trobe University, gave an overview, noting that "bees are regarded as instances of the divine intellect and the way that it's woven through nature. This is because in the beehive, there appears to be, from our point of view, a real intelligence at work. For instance, they have this innate knowledge of geometry, their hexagonal cones and so forth, that seems to be an intelligence at work.

". . . The bee is a very conspicuous sacred symbol in nature, and while we can have a sentimental attachment to nature, the bee takes us out of that and takes us into the real inner workings of nature. It tells us that there's a lot more to the way that nature operates and works than just the crude mechanisms of industrial science, which are just really a system of levers and pulleys. And they're very effective levers and pulleys, but it gets us into a lot of trouble if we start pushing and pulling those levers and pulleys without the application of wisdom, and the bee represents that sort of wisdom that needs to go hand in hand with industry."

The program's transcript gives many fascinating analyses about the "wisdom of the beehive" as a teaching in all major world religions. In Christianity, the queen bee served as a model in the development of worship of Mary. In Islam, the Q'uranic Sura titled "the Bee" shows how God inspired bees to find habitations and food virtually anywhere, serving as a model of adaptability for humans. In Hinduism, the "goddess of passion and love, Kamadeva, has a bow and arrow similar to Eros or Cupid, except the string is made of honeybees." Mormonism, Greek mythology, and a range of other traditions are touched on, as well: the program even notes parallels drawn between honey extraction and alchemy in the Middle Ages.

To read the transcript of *"Encounter: Sacred Bees*," visit: http://www.abc.net.au/radionational/programs/encounter/sacred-bees/5037376 . Below, an image of Kamadeva, whose bees drove away demons that plagued a Hindu village:

HOLIDAY HONEY RECIPES

Twinkie-Stuffed Turkey (thanks to Mike Helms for this recipe!); serves 15-20

Ingredients:

- 1 (8 1/2 ounce) package yellow corn muffin mix, prepared & baked to package instructions
- 6 Twinkies, halved lengthwise
- 1 (14- to 18- pound) turkey
- 1 tart apple, peeled, cored and diced
- 1/2 cup of honey

Directions:

1. Remove the muffins from the oven and allow to cool on a wire rack.

2. Preheat the oven to 350 degrees F. Scrape the crème filling out of the Twinkies with a small spoon and reserve in a small bowl.

3. Cut the Twinkie pastry into cubes and spread in a single layer on a baking sheet. Bake for 8 to 10 minutes, until lightly toasted. Remove from the oven and allow to cool completely. Decrease the oven temperature to 325 degrees F.

4. Rinse the turkey. Crumble the muffins into a bowl, add the apple and toasted Twinkies, and mix lightly. Loosely stuff the mixture into the turkey and truss the legs. Place the turkey, breast side up, on a rack set in a roasting pan.

5. Roast the turkey for 12 to 15 minutes per pound, until the thigh temperature reaches 175 degrees F to 180 degrees F and the juices run clear.

6. In a small bowl, combine the honey with the reserved crème filling and mix well. Brush the turkey with the honey mixture during the last 10 to 15 minutes of roasting time.

7. Remove the turkey from the oven and let stand for 20 minutes before carving.

Looking for some holiday sides or finger foods? Try these from the National Honey Board:

Honey-Glazed Red Pepper with Goat Cheese

Ingredients:

- 1 large - sweet red pepper, cored and seeded
- 1/4 cup - thinly sliced onion
- 2 cloves - garlic, crushed

- 1 Tablespoon - olive oil
- 3 Tablespoons – honey
- 3 Tablespoons - red wine vinegar
- 2 teaspoons - dried basil, crushed
- 1/2 teaspoon – salt – pepper
- 2 whole - lettuce leaves
- 2 oz. - goat cheese
- Toasted baguettes

Directions:

- Thinly slice red pepper.
- Sauté pepper, onion and garlic in oil 10 minutes or until onion and pepper are tender.
- Add honey, vinegar, basil, salt and pepper; cook and stir over medium-high heat until glazed.
- Serve on lettuce line plates with goat cheese and toasted baguettes.

Honey-Brushed Pear [or Apple] Crostinis

Ingredients:

- 8 tsps – honey
- 8 - crostini breads [alternative: thick crackers work well]
- 2 - Red Anjou pears [alternative: your favorite Washington apples]
- 4 tbsps - bleu cheese, crumbled [alternative: brie or other favorite cheese]
- 1 tbsp - fresh rosemary, finely diced

Directions:

- Brush each crostini bread [or crackers] with 1 teaspoon of honey.
- Next, cut pears [or apples] into ½-inch slices (about 8).
- Place a pear [or apple] slice on each honey-brushed crostini bread.
- Top with ½ tablespoon of bleu cheese [or brie, or whatever…].
- Garnish with a pinch of diced rosemary.

Honey Cups with Honey, Brie, Walnuts, and Cranberries [photo, National Honey Board]

Ingredients:

- 4 tbsps – honey
- 1/2 lb - brie cheese
- 1/2 cup - chopped walnuts
- 6 tbsps - dehydrated cranberries
- 1 tbsp - chipotle paste
- 30 - phyllo pastry shells
- Salt and pepper
- 3 - canned chipotle peppers , For the chipotle paste
- 1/4 cup - chicken stock or water, For the chipotle paste

Directions:

- In a small saucepan, lightly heat the honey and mix it with the chipotle paste, salt and pepper.
- Add the walnuts and cranberries and stir. Remove saucepan from fire.
- Cut the brie cheese into ½-inch cubes.
- Preheat oven to 350°F.
- Place the phyllo cups onto a baking sheet and fill them evenly with the cubed brie.
- Top them evenly with the honey mixture and bake them in the oven for 5 - 7 minutes or until the cheese melts.
  Serve them hot.

For the chipotle paste:

- Clean the chipotles peppers and remove all the seeds.
- Put them in a blender with the water or chicken stock.
- Blend until perfectly mixed.
- It can keep for weeks in the refrigerator & is a good base for preparing chipotle sauce or for flavoring other dishes.

ANNOUNCEMENTS & HELP WANTED

Complete bee colonies for sale: Renzy Davenport reports that a Lithuanian beekeeper in Kent, WA has about 200 hives – woodenware + bees on frames with drawn comb & food stores– that he is willing to sell up through Jan 1, after which he'll be taking the bees to California (he'll be selling again when he returns in April). He builds his own bottoms, boxes, and lids to Langstroth specs; frames were purchased. The bees originally came from Carniolan and Italian stocks, but now are essentially "mutts." 1 deep + bees is $150.00; a 2 deep box + bees is $250.00. This gentleman does not speak English: if you call, his daughter, Luba, will answer the phone: 253 232 8014. Renzy's brother in law bought a deep from this source several weeks ago and reports he's happy with it.

Want to put some bees on other folks' property in 2014? At the Fair, several people asked if they could host bees – they'd like the pollination for their gardens, but don't feel ready to do beekeeping themselves. If you have more hives than you know what to do with, please contact Susanne about these potential foster homes.

Discovery Children's Museum would like an observation hive: can you help? If you have an observation hive to loan or donate to the Discovery Children's Museum in Chehalis, please contact Susanne. The Museum seeks help to attract children's interest to bees.

December Western Apicultural Society Newsletter: Visit http://groups.ucanr.org/WAS/WAS_Journal and click on the line in the paragraph on the right as directed. If you're still getting the old issue, click on "empty cache" in your browser or "refresh" or "reload" under VIEW in your menu bar.

December WSBA Newsletter: Pick up your copy from www.wasba.org: click on "Newsletters" under OUR SPONSORS on the lower right of the page. Then click "Current issue.

That's all for this month - take care, & bee happy!

~~ Susanne Weil, LCBA Secretary (Susanne.beekeeper@gmail.com; 360 880 8130)