



EJ'S NEWS

EJ is East Jefferson Beekeepers Association's Mascot.

Volume – 11

Gloria Neal- Editor

July 2022

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CLUB

MEETING:

East Jefferson Beekeepers' Meeting

Chimacum Grange

9572 Rhody Drive
In Chimacum

Saturday, July 9th

Board Meeting - 9:30 a.m.
Club Meeting - 10:00 a.m.
Potluck - 11 a.m.- 1 p.m

THE PREZ SEZ

Dear Beekeepers,

This is from Kathy Cox and the Puget Sound Beekeeper's Association (Seattle and King County). It pretty much reflects where we're at in Jefferson County:

Well, we skipped Spring altogether and have gone right into Summer. Weather has been whacky! Everything with bees has been whacky. Many hives have starved, because of the rain and inability to get out for resources. Build-up has been slow or non-existent. Queens have been poorly mated or not mated at all. Swarms are happening like crazy. I think since everything was slow in the apiary, we will see swarms into July. Keep checking for swarm cells every 7-9 days. Blackberrys [sic] are blooming and finally have heat to pump up the nectaries. Grey pollen is coming back from the berries. It is great to finally see the bees in the air foraging.

Nectar takes so much more space than honey, so make sure to add supers when the last one is getting full. If you have supers getting filled you should stop feeding so that the honey is not a mix of nectar and sugar water. Make sure to have an upper entrance so the foragers don't have to go through the brood area and queen excluder to deposit their bounty. If the bees are reluctant to move up, bait the hive body with a frame of pollen and/or nectar.

Don't forget a dearth of nectar is coming after the blackberry flow. Be prepared to feed again. Knotweed and Ivy will bloom towards the fall.

We are a little more fortunate in that we have fireweed and plenty of flowers in most areas of the county to get us into August.

Sincerely

Dave

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EDITOR'S NOTES

Happy July EJ Beekeepers and Friends,

In spite of the cold and rain, swarm season is here! And now we are getting a few HOT days and we are hearing of lots of swarming.

Are you inspecting your colonies for queen swarm cells? Are they capped?



If they are capped, your bees ARE going to swarm, if they haven't already. Taking out capped swarm cells will not stop a swarm, but it could leave your colony hopelessly queenless. Making a split may save your colony from swarming.

Check out EJBees' online classes or more information on splits

EJBees has been in full swing this year. We have close to 100 EJBees members signed up, with about 64 members taking our online and in-person classes. We have a large number of new beekeepers who are also benefitting from working with mentors.

Our July meeting will include a potluck luncheon and some time for visiting. Hope you can come.

August will be Jefferson County Fair, in which we are planning to participate. We will have an educational booth, some activities for the kids, and many more features to promote beekeeping.

Please join us at the fair. It's such a delight to be able to share the joy of beekeeping with people who are very receptive to learning about this wonderful hobby.

See you at the Grange on the ninth!

That's the Buzz for July,
Gloria

eastjeffbees@gmail.com

BEEZWAX

By John Martin





July 9 Meeting and Potluck Lunch

9:30 Board Meeting

10:00 General Meeting

11:00 - 1:00 Potluck Lunch

EJBees is holding a **POT LUCK LUNCH** for fun and good cheer after the July 9th meeting at the Chimacum Grange. The meeting ends at 11 AM, when we'll start setting up so we can eat by about 12:00 noon. We have the Grange rented until 1 PM.

The bee club will supply hamburgers and hot dogs to grill on the spot (bring your own veggie burger or other grilling item, if you prefer). Members are encouraged to supply a potluck dish to share, and a beverage for your own family group (we'll supply coffee and bottled water).

We also encourage mead-makers in the club to supply a bottle of their brew, and we will have tiny glasses on hand for a tasting.

This potluck is open to current bee club members and their families, and there will be plenty of time to continue discussing bee-related questions along with the rest of our friendly conversations.

If you haven't done so yet, please RSVP to let us know how many from your family will attend.



Susi (secretary of EJBees)

FAVORITE LINKS

Crikey! Varroa in Australia!

The first varroa mite infestation in Australia has been identified at the Port of Newcastle, New South Wales, north of Sydney. The outbreak, discovered about June 20, has not been contained. Now, strict rules about moving bees have been instituted. In addition, all bee colonies within certain isolation areas are being destroyed. Australia is just going into almond pollination season, and it is impossible to get bees into the fields to service this crop. Since Australia produces about 7% of the worldwide crop (the US produces 80%), expect almond prices to rise.

----Rich

KNOW MORE ABOUT VARROA DESTRUCTOR MITES AND HONEY BEES

<https://youtu.be/a2vg59Snt6c>

In the Garden

With Catherine

It was one of those mornings. Late June, the sun was up, but my feet were dragging. You know how it is when you've got a long to-do list, but the get up and go kind of got up and went. The day before I had collected a swarm from a Douglas fir 15 feet up with a 12 foot limb pruner. Yep. Eighty-six degrees at high noon in my full bee suit with the sun on my back. Not whining. (Maybe a little.) At nine a.m. the morning post swarm, I was in a state of: Why am I in this room and what is it I'm looking for?

I love swarms for the simple reason that they allow me to observe honey bees that are calm and completely absorbed in their work. As opposed to my queenless hive that feels like I'm working in a bee tornado every time I remove the lid. Wouldn't it be great if you could communicate to your bees just how much you appreciate and respect them? And to also let your queenless hive know that you're trying to help them. To kindly request that they take it down a notch.

In DC Comics Superboy No. 124, Lana Lang is gifted the ability to turn into any insect as needed, thanks to her having aided an injured alien. (This happens often in my world.) In one scene she contacts her mom via newly grown antennae and has her look up her homework answers, having forgotten. We're talking many years pre-cell phone—1965. Now, there is little to no chance of me sprouting antennae for a two-way discussion with my bees, but still it's fun to imagine. Where was I?

Ah. Watching honey bees.

There I was observing the newly-hived swarm, wondering what they were up to in their cozy home, when out of the port pops a worker with a tiny bit of white paper and putters away. Ah! They're tidying up. More than likely some of the backing from the pollen patty placed yesterday. And with that simple action, I was completely motivated to get at it. I'm not sure if it was honey bee as muse, or the adrenalin rush from seeing a novel gesture. In any case, it was what I needed to get busy. So our honey bees not only provide us with honey, and hours of entertainment, they serve as gurus too.

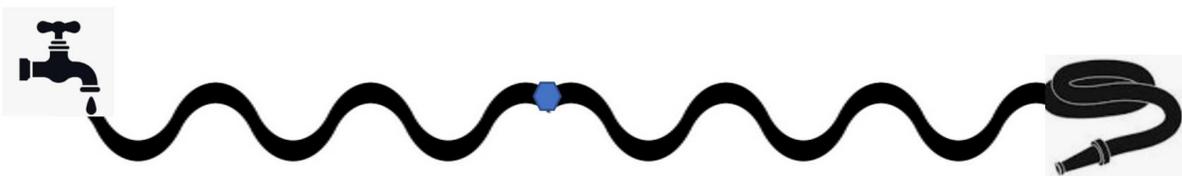
—Catherine Slaton

TIPS & TRICKS by Susi

July 2022: a monthly offering of useful hints for beekeepers



- Use wooden shims (1/8 inch or smaller) diagonally across each inside corner of the top cover as a ventilation spacer. Secure with a thumb tack (see example at July bee club meeting).
- Watch for robbing! Hive entrance-restrictors should be in place now, and your robbing screens should be ready to go.
- For honey-extraction day (maybe in late July), leave a garden hose out in the sun to have plenty of hot water for cleaning the extractor. To increase storage capacity, connect two or more hoses together. Be sure to turn water off at the hose bib and relieve pressure on the filled hose.



2022 Jefferson County Fair, August 12-14

A Beautiful EJBEEES Bee Booth



Come to the Fair! Join the fun of setting up our EJBees booth

And telling visitors all about bees and beekeeping!

Please sign up for a 3-hour block of volunteer time if possible on one of the days. There will be a sign-up sheet at the July 9th EJBees meeting.....or contact richandsusi@ejbees.com.

FAIR SCHEDULE

Thursday 8/11 Set-Up: starting 10 or 11 a.m.

Friday 8/12 Docent: 10 a.m. - 9 p.m

Saturday 8/13 Docent: 10 a.m. - 9 p.m

Sunday 8/14: 10 a.m. - 6 p.m.

Sunday 8/14 Take-down: starting ~6 p.m.

There are some fair passes available for volunteers.

THANKS!!



HOW DO YOU READ US?

----A SURVEY----

WHERE ARE YOU RIGHT NOW? Are you on your phone? Tablet? Laptop or desktop?

We'd like to make the newsletter convenient and readable for all. Our traditional format is tailored to your computer screen or to print out on paper. However, some members have mentioned that they do EVERYTHING on their *mobile phones* these days.

So, we've decided to take a survey this month to find out whether the majority of readers are indeed on their phones, and if so, we'll determine how to change our format accordingly.

If you'd please simply consider the questions below and send your brief reply to the secretary, Susi Thomas, at richandsusi@ejbees.com, we'll tally up the score and make adjustments as needed.

Thank you!

Gloria & Susi

EJB Newsletter Survey

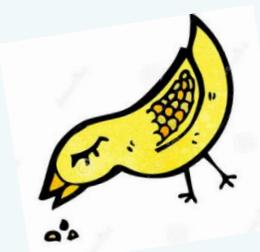
1. How do you read the newsletter?
 - a. Mobile phone
 - b. Computer, laptop, tablet
 - c. Print-out from email
2. Does the current format work for your reading? If not, what needs to be changed?

The Birds and the Bees

The weather was foul in early June when our backyard birds were frantically trying to keep their hungry babies fed. Worn out, wet, and bedraggled as they searched the garden for "bugs and worms" amidst wind and downpour, these struggling parents were not having much luck.

The story seemed headed for a sad ending.....until Rich saved the day!!

Making use of a great resource from the apiary, he gathered all the drone comb he had removed from the varroa mite-trapping frames in several hives and set a chick-feeding buffet out on sawhorses and buckets for the birds to use.



Oh my! It didn't take long at all before spotted towhees, scrub jays, black-capped chickadees, dark-eyed juncos and all the rest were making trip after trip to partake of this nutritious free lunch for their chicks! Even my friend Flicker (the red-shafted one) checked it out, although ants are its favorite food.

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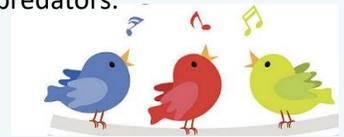
Birds and Bees Continued from Page 6



They took their separate turns with no energy wasted on squabbles, working steadily hour after hour and day after stormy day. Eventually, chicks from all the various nests fledged successfully.



Now in early July, the major rains have finally passed, summer weather has arrived, and the parents are still feeding their robust and hungry youngsters, who have by this time learned to stay safely up on high perches, hidden and out of reach of predators.



Whenever possible, Rich continues to supplement the birds' seedy, fruity, or insect and wormy diets with more of these precious comb blocks of drone brood from the beehives.



-----Susi

IT'S JULY!

Swarming Season – are you checking for swarm cells?

Varroa Season – are you monitoring and treating for mites?

IN THE HIVE *By Catherine*

Seems like there's always something, big or small, out to get our bees. We're all familiar with varroa mites. We know threats to our bees exist with birds, bears, and even other bees. Some are easier to see than others. Even the tiny varroa is visible to the human eye. But what about threats we *can't* see without the aid of a microscope? Last winter I lost one of my hives to what may have been nosema. The outward signs were obvious. By the time the brown markings of dysentery showed up on the outside of the hive, the bees were already in such a frail condition, there would be no saving the hive. A quick peek inside on a mild enough winter day showed a marked decline in the bee population. Within a few weeks the hive was dead. But was it nosema that killed the hive? Or something else?

Hind site being 20/20, the hive may have needed to be in sunlight for more hours than it was. During the summer my apiary receives enough sunlight but once the sun's low winter arc is in play, this particular hive spent much of its time in the shade. Moisture was a problem even though I replaced shavings as needed. Did varroa take a strong hold? Were my attempts to fog efficient. In short, I have hunches but nothing concrete as to why this hive failed. This was a winter of mistakes, but it was also a winter of learning.

Nosema is a fungus which, according to *ABC and XYZ of Bee Culture*, "... may increase susceptibility of the honey bee host to viruses and other stressors, and infected bees may be less able to withstand extreme weather conditions..." It has been suggested that the honey bee may become infected with Nosema via pollen contaminated by other visiting bees on the same flower. Foragers return to their hive and spores are spread through the hive by housekeeping bees accepting and distributing pollen.

Dysentery was clearly visible in and outside of the hive. But is dysentery necessarily nosema? Is it a sign that microbes necessary for proper digestion are not at optimum levels? Were my bees not receiving adequate nutrition? Was there something interfering with nutrient absorption?

Without inspecting one of the infected bee's midgut under a microscope, I won't know if nosema was the culprit that brought down my hive. What I *can* say for certain is that (1) my bees exhibited dysentery, and (2) the hive failed shortly thereafter. Dysentery can also occur when bees ingest undigestible material. According to Randy Oliver. There is no cure for nosema, but disinfecting the hives via asetic acid will at least prevent the next colony to inhabit that hive from contracting it from contaminated woodenware. It's a simple enough process, but directions need to be followed to the *T*making sure to wear protective gear. Do I know for certain that my hive showing dysentery failed from nosema? No – but as insurance I will fumigate them.

For some incredible information on dysentery, nosema, and mechanics of the honey bee's digestive system please visit the links below. Oliver has two separate multiple-part papers on dysentery and nosema. I've included links to the first sections of each. They are both easy and fascinating reads with photos taken through the microscope lens. You'll find yourself nodding your head and saying to yourself "Wow." (Girl Scout's honor!)

<https://www.honeybeesuite.com/repeat-after-me-nosema-does-not-cause-dysentery/>

<https://www.ejbees.com/?s=Nosema>

<https://scientificbeekeeping.com/the-causes-dysentery-in-honey-bees-part-1/>

Rich's 8-Day Formic Pro Experiment - It Just "Mite" Work!

One of my overwintered hives developed a severe varroa mite infestation early in the season. It was first noted on May 7 and again on May 20, when I was checking drone brood. I had done a couple of oxalic acid (OA) fumigations, but the problem kept getting worse.

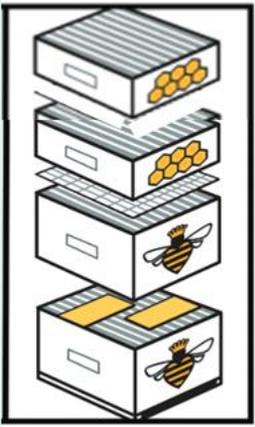


This hive has a superb third-season queen that is still laying just fine, but also producing a lot of drones. I have had mite issues in years past in her colony.

I decided to employ Formic Pro on June 16. I did the 14-day method with both pads inserted and terminated on Day 8 (*shown in bottom deep in the diagram below*). The hive included 2 deeps and 2 honey supers, one of which was 1/3 full. The results have been very satisfying.

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Formic Pro Experiment continued from Page 8



Formic Pro Setup

I moved another inside cover between the lowest honey super and the hive box to concentrate the vapors. Mite-drops on subsequent days were 90-75-50-35-30-30-30-25.

A small number of dead brood and drones were noted on the landing board the first day.



I terminated the treatment on Day 8 and did a regular inspection. Even more impressive than the mite-drops was that during the inspection, I found about 30 mites total among 100 drones “impaled” with the scratcher fork for inspection. All but 3 mites were dead. They appeared desiccated—I actually saw one blow away in a very light breeze. Infestation of drone brood was consistent at 10% to 20%.

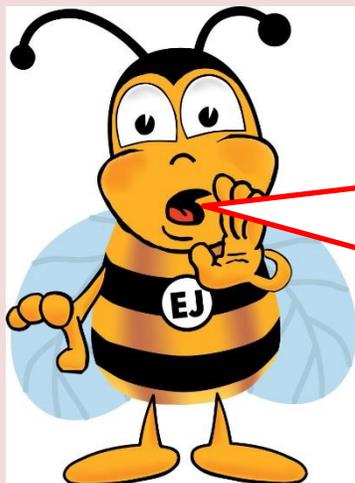


Drone pupae impaled on scratcher tool for sampling mite infestation. Note 1 mite on each of 3 pupae (red dot inside blue oval (Photo: Susi)

Please note that the regimen for Formic Pro calls for a 14-day treatment. However, that is simply impossible at this “swarmy” time of the year when inspections must be frequent.

I will now start using OA-impregnated shop towels for the rest of the season.

-----Rich



<http://ejbees.org>

CALLING ALL EJ BEEKEEPING KIDS!!!!!!

Starting in the next EJ’s News issue you’ll see a **KIDS’ PAGE** just for **YOU**, filled with bee activities & puzzles & other fun things!

Please send me a photo of Yourself with your Bees to share on the page, and your Bee Stories, too! Send to

richandsusi@ejbees.com. Happy Beekeeping! **SUSI**

Bee Biology

Bee Festooning—Garlands and Lace



wildflowermeadows.com/2016/07/festooning-bees/

Have you ever started to separate two frames during inspection and found them to be attached by chains of bees, seemingly sticking together as if caught in a web? As you carefully widen the gap, the bees stretch out elastically until they can reach no further. . . then snap apart.

What on earth are the bees doing in these paper-doll chains, or garlands, or sometimes *sheets* of living lace?



Living lacework tapestry in drone frame (Photo: Rusty Berlew, Honey Bee Suite, 2016)

They are connected by clasping each other's feet—like holding hands!

And the behavior is called **"festooning."**

Observant beekeepers and some bee-scientists speculate that these nets of workers are vital to the task of COMB-BUILDING in the hive, in one or more of the following ways:

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Bee Festooning Continued from Page 10

- To measure the required spacing of comb under construction, using bee-body dimensions
- To provide a scaffolding upon which other workers walk and use as a building platform
- To help promote or facilitate wax production.



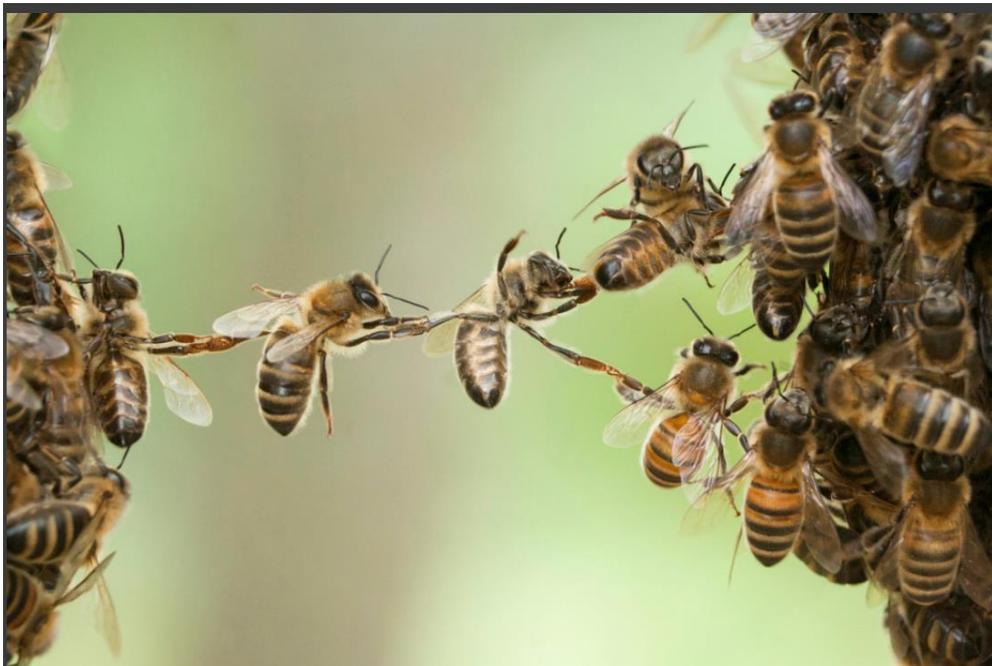
Festooning between frames (Image: Jackie Woodcock)

On the last point, some speculate that the heat generated by the bees in and around the festoon is sufficient (33-36°C, about 91-97°F)

for creating and working wax, and that the stretching of the bees' abdominal areas where wax glands are located stimulates wax production (e.g., Woodcock, 2020).

It is a behavior more readily viewed in top-bar or other hives without the rigid structure of Langstroth boxes and frames¹ or in a full-functioning observation hive, but in any case, not easily observed in detail without disruption of the bees' work.

Other functions? Based on observations, the linkage of honey bee swarm sections has been suggested as one in which festoons stitch the dense mass together as it hangs or rests in its temporary location.



Bees bridge two parts of bee swarm. Photo: Siraj Virtina, wildflowermeadows.com, 2015

Personally, I have observed a sheet of festooning bees covering the inside of the hive entrance-hole like a curtain during driving rain, and all the while, individual links rotated in and out of the lacework. The purpose seemed to be to keep the hive dry inside. The rotation spared the lives of drenched bees in the

Bee Festoning Continued from Page 11

rain-shielding festoon—just as in the winter cluster, heater bees rotate from the outside of the ball inward, changing places with their counterparts that have had time to warm up again.

It reminded me of the way fire ants and other ant species will link their feet to make a mat or a sphere that can float across a creek or flood-water rivulet, with queen, brood and other workers riding the float or safe inside the sphere, and with a rotation ensuring that no individual stays in the water too long.²



*Detail of fire ant floating mat viewed from underneath
(Image: BBC-Earth)*

I studied ants in the desert southwest for my doctoral research, and by chance I was present during rare, major flash floods. I found that even the desert harvester ants that were my focus will exhibit this behavior during such extreme conditions.

There is by no means a consensus among scientists about the exact function of the bees' festooning.³ However, it is a fascinating behavior, an exciting surprise to happen upon in our own hives, and something that is clearly of importance to the bees.

I agree wholeheartedly with the great bee biologist, Dr. Jürgen Tautz, who wrote that “[t]he more we are able to penetrate the hidden lives of the honeybee, the greater our amazement, and also the deeper our ambition to explore this wonder-world.”

NOTES

1. Except perhaps in “drone frames” used in Langstroth hives for varroa mite management (i.e., mite removal).
2. See a living life-raft of fire ants in this BBC-Earth video: <https://www.youtube.com/watch?v=MJ4ljC512bg>.
3. Dr. Jürgen Tautz, a notable German bee biologist at the University of Würzburg is credited with nearly 250 (excellent!) publications on bees is most often cited in calling the function “*unknown*”—but nobody has provided an actual reference when quoting him! “The function of the living chain that is formed by bees where new combs are being built or old combs repaired, is completely unknown.”

REFERENCES

Berlew, Rusty, “Lacework Between the Frames,” honeybeesuite.com, 2006.

Delaplane, **Keith**, “More on Comb Building: Wax Deposition, Cell Construction, and Emergent Properties,” *American Bee Journal*, January 1, 2016.

Tautz, Jürgen, *The Buzz About Bees: Biology of a Superorganism*, Springer, 2007.

Woodcock, Jackie, “Honeybee Festooning: Stretching for the Comb,” *Adirondack Almanack*, 2020.



---Susi

LOCAL BEE RESOURCES

TARBOO VALLEY WOODENWARE & HONEYBEES

Frank Neal- Ph. # 360-301-1850...

5% discount to EJB club members for bee supplies

NEW WEBSITE: tarboovalleywoodenware.com

NEW EMAIL: gloria@tarboovalleywoodenware.com

PLEASE CALL AHEAD!

We have our new supply of bee boxes in...

If you would prefer not to receive this newsletter, please email us at eastjeffbees@gmail.com