



NEWSLETTER

Bowie-Upper Marlboro Beekeepers Association

August 2014

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www.BUMBAbees.com

MEETINGS

Next BUMBA Meeting

Thursday, Aug. 7, 7:30 PM, Watkins Park Nature Center

Maryland's Native Bees, and Prepping for the Honey Show!

Did you know that there are approximately 4000 species of bees in the United States, 800 species east of the Mississippi River, and 400 species in Maryland? Little is known about the populations of most of these species. In 2009, **Gene Scarpulla**, our first speaker, conducted a year-long survey of the bees on Hart-Miller Island in the Chesapeake Bay to increase our knowledge of Maryland's bees. Gene will give a brief overview of the history of Hart-Miller Island, describe his yearlong survey, and show the marvelous diversity of bee species that he found on the island.

Our second speaker will be **BUMBA** member **David Morris**, a Maryland honey show judge for over 15 years. His presentation will be on preparing honey show entries as well as how the entries are judged. The MSBA Honey Show will be a big feature at the Fall meeting and we have not had any Youth entries for several years. Help your children learn how to prepare honey show entries and win the blue ribbon! If you bring a jar of honey and we will test the moisture level. Bring a block of beeswax or a pair of candles, and get

a judge's preview of how well your sample is prepared.

The President's Smoker

It is the end of July and I have nearly finished my honey harvest. The bees seemed to be taking forever to cap the cells out this year. I had quite a number of frames that were only 50% capped and was worried about the moisture content in the uncapped sections. Shaking the frames sharply did not cause the honey to drop out, so I started out by extracting a light load of 10 frames with the least amount of capped honey and testing the output with the refractometer. The reading was 18.6 % so I went ahead and extracted full loads of 20 frames after that. Each load yields about 75 lbs of honey and I tested each load for moisture content with a range of 17.8 % to 18.6%. I think that all the honey that I extracted will be safe from fermentation at these levels. Some years it has read as high as 18.9% and has never fermented in the jars. Some authorities recommend that your honey always be at 18% or less, but I know that some honeys are naturally at a little higher moisture content and won't dry any lower.

I have heard mixed reports on honey production from among our members this year. Mine was sub-par for what I wanted, but considering having pulled over 100 splits from my hives, I suppose the bees actually did pretty well for me. I have harvested around 600 lbs. and have perhaps a few more supers that I can take off if I want to. I hope your bees have performed well for you this year with established hives making honey, and new starts building up strongly for you. If you did make a lot of surplus honey, I have received the consignment prices and rules for the state fair and have sent them to the editor to print elsewhere in this newsletter issue (attached separately, ed.) The rules only mention labeled jars briefly under item

#6, and from that inference I do not believe they want your jars to be labeled. I think every jar I saw last year at the sales booth had a CMBA label on it, and so it makes me think that they want the consistency of placing their own label on all of the honey jars. If you are considering consigning some honey, you will want to check that out, and pay close attention to all the rules.

I intended to make this column brief this month, but I want to share with you some of my recent experiences with instrumental insemination (II). There is a great deal of attention to detail required to successfully utilize this amazing tool. Mastering the techniques in whole will prove to be a great challenge, it would appear. I started out by grafting 45 cells from each of the two breeders. Of the 90 grafts, after all was said and done by the bees, my culling, and planting 30 cells for open mating, I narrowed it down to 24 of the best looking cells to cage and hatch out as virgins for II work. I had 12 from each breeder. One cell from each failed to emerge, but I had 22 beautiful virgins in mini cages in the queen bank to harden off for the 10-18 days before being II'd. Eleven were golden, and eleven were dark to black, all of them pure VSH. During the hardening off period, I began catching drones from the drone mother selected colonies. Drones are haploid genetically, and so all the drones from a given hive, excepting refugees, carry only the genetic code of the queen who laid the egg they hatched from. So I could mate the virgins only with the homogenized semen of the drones whose mothers I like best. Well, I hadn't placed drone combs in those hives 40 days earlier like I should have to insure a vast quantity of "mature" drones to harvest (lesson learned), and I very quickly discovered that I was only getting a mature drone for every 15 or so I was everting. This translated into having to catch a *lot* of drones, so I quickly taught Vanessa how to do it for me, and she caught 800 of them for me, selecting them and culling for odd color or small size, one by one as she caught them. I everted all 800 she caught, plus the couple hundred I caught, and extracted semen from those that were fully mature, and ended up with enough to inseminate the 22 queens. This took about 8 long evenings and a full Saturday to do. I had set up my equipment and timed

everything so that I would have a full Saturday with Sunday in reserve to perform the II manipulations.

It was that Saturday about noon when I was finally all ready to get started, and found out that I had a gas leak and had lost my full tank of CO2 since turning it on Friday evening to set up the delivery volume. I had turned it off at the regulator, but not at the tank, and had a bad gasket that leaked. The gas supplier is not open on weekends. (Lesson learned). The following Monday morning, having written off work for the day, I got a new tank full of CO2, and now, armed with anesthesia, Dr. Bob was in the operating room by 10 AM sharp. Eighteen of the inseminations were so textbook perfect that I was already mentally congratulating myself on my prowess, when alas, I ripped the stingers out of the next 4 in a row. (Lesson learned). So 18 queens went back into the, now 4 week old, queen bank (there's a lesson coming up here), all with natty bright green numbered tags on their carapaces, looking really wonderful. They have to be banked for 3-4 days and then anesthetized again before giving them to their new hives so that they don't fly out and try to mate again. When I checked on them on day 2, all was well and they were fine, and all the efforts seemed trivial at that point. On day 4, I went to retrieve them for their second CO2 treatment and then placement in the nucs I had set up for them that morning. *They were all dead.* Confound it all...how utterly disheartening! What could have happened? Well, I don't know the answer for sure at this point...was my technique flawed? Did I not follow sterile procedures? I got to wondering if not having replaced enough frames in the queen bank with emerging brood was a possibility. Or did I move a frame with a queen cell started into the bank? I really don't think so, having been extremely careful not to do that and checking every 5 days after adding new brood to make certain there were no cells. So I made an inspection and I found eggs and open larvae in the queen bank. Apparently, the main hive below the Cloake board queen excluder had swarmed, as I had thought it might, and a virgin either came through the excluder or returned to the back side of the hive and went into the top entrance. I don't know if she could have stung all

the queens in the cages, or if the workers let them perish since they had a new queen that they could actually touch and love on, but all my hard earned queens took a bullet somehow. (Lesson *in* learning). Anyway, I don't wonder why the II queens cost so much anymore. Oh... I'll try again, but wiser in my approach the next round, I hope.

Happy beeking!

I hope to see you all Thursday night. God save the Queen!

Bob Greenwell

DC Beekeepers' Alliance

www.dcbeekeepers.org

The **DC Beekeepers Alliance** is now holding regular meetings on the 3rd Wednesday of each month at the **Rock Creek Nature Center** of the National Park Service, 5200 Glover Road NW from 6:30 PM to 8 PM. Their speaker will be **Dr. Steven Cook** (of the Beltsville Bee Lab). For directions and other meeting information, visit www.dcbeekeepers.org

MSBA Fall Meeting

Elections and Honey Show

Nov 15, 9:30AM – 4:30PM

Md. Dept of Ag. HQ

50 Harry S Truman Pkwy, Annapolis

www.mdbeekeepers.org

Featured Speaker: (not announced yet)

The Fall meeting of the **Maryland State Beekeepers Association** will include elections of officers as well as the annual **Honey Show**. First prize entries earn \$12! The show has divisions for

“Hive Products”, “Honey Cooking”, “Beekeeping Related Arts and Crafts” and “Youth”. There are recognition awards for “Best in Show” as well as “Best Club Showing” for the local association that earns the most 1st, 2nd and 3rd place prizes!

Honey Show rules and entry forms will be available in the October newsletter and on the MSBA web page!

CLUB HAPPENINGS

2014 June Outreach Events

Linda Thompson, Outreach Coordinator

lmtpublic@comcast.net, 301-352-3663 (h), 301-943-4368 (c)

Only a few event remain in 2014. Each event is an opportunity to be ambassadors for the bees, sell our products, recruit beekeepers, & promote club membership. **Can you help?**

9/20 Maryland Honey Harvest Festival

9 - 3:30 Saturday

National Wildlife Visitor Center, Patuxent Research Refuge (Powder Mill Rd), 10901 Scarlet Tanager Loop, Laurel, MD 20708-4027

fws.gov/northeast/patuxent/events.html

Sponsored by the **MSBA** and **Friend of Patuxent**, we take over the Visitor Center! Live hive demo tent, ob hives, honey tasting, candle-making, mock apiary, honey-bottling demonstrations, kid's arts and crafts, refuge habitat tram tours, and more! This is our second-largest annual event (behind Maryland Day). The center is a lovely venue and folks have even come from Delaware to attend this event. We sure could use your help!

See the flyer for more information (attached separately).

11/8 Trash To Treasure Green Craft Fair

10 - 4 Saturday

Watkins Nature Center, Upper Marlboro
pgparks.com/Things_To_Do/Nature/Watkins_Nature_Center.htm

Recent Outreach Events in June

Two events in June and a very quiet July... I, for one, am enjoying the breather.

Bowie City Council Meeting

Monday June 16, 8 PM. **Maria Arnold** from **Bowie Gardens 4 Wildlife** and **Linda Thompson** from **BUMBA** presented the Governor's "*Maryland Pollinator Week Proclamation*" to **Mayor Robinson** and the City Council (as we have done for the past 4 years). We shared a 5-minute speaking allowance to thank the council for the work they have done and ask for their continued support. There are both a rain garden and a wildflower garden right on the Bowie City Hall grounds! I told them that bees are essential to our food supply and environment; they are being threatened on many fronts; that beekeepers are doing all they can to help the bees fight off pests and diseases; and that we need legislators to help with establishing bee-friendly environments. I asked them to consider pollinator forage whenever they had the opportunity to plant in the city.

Croom Farmers Market

On Saturday, June 21, we had quite a few volunteers signed up for this 8 AM to noon event, but life conspired against us and not everyone could make it. Sometimes it goes that way. **Jeff Colburn** picked up *all* the **BUMBA** display materials. He set up a table outside during the farmer's market. He also set up a display inside the church hall that was up for the entire weekend, giving many people an opportunity to learn more about bees! Thank you, Jeff, for all your time and effort. Thanks so much also to **Gerry Jones** and **Greg Gill**,

who joined Jeff at the Farmer's Market. I hear they had a great day!

MEMBERS' CORNER

Bee Quilt Raffle!

BUMBA member **Jan Day** has created the most amazing and beautiful bee quilt, which she has very generously donated to the club as a fund raiser. The quilt is 69x87 inches, so it will fit a double bed. It is 100% cotton with a 70-30% cotton-poly batting. As you can see from the photos it is made of hexagons (honey comb cells). The cells look like capped honey, pollen, and even has a few bees on the honey comb.

Raffle tickets for the quilt will be sold at each meeting until December. At the **December** meeting, the winning ticket will be drawn. Tickets are \$1 each, or 6 for \$5. *Bee sure* to buy some tickets there so you don't miss out on a chance to own this magnificent quilt.

Bowie Bears; NOT a Sports Team!!

Flash news! This just in minutes before the newsletter was to be sent out. **BUMBA** member **Fritz Edler** reports:

Hello all:

A new worry for this region. I have 5 hives in Collington (near Bowie), MD. In the last week, we have definitively identified bear scat near two of those hives. It does explain more agitated bees recently.

I raise this because most (certainly myself) would not previously have considered bears a threat to the hives here.

In our situation, we are taking action towards tracking and trapping the intruder before further threat to the bear or the bees.

"The Bees", a novel, by Laline Paull

Reviewed in the Washington Post, July 30, 2014 by Sara Sklaroff

The title “**The Bees**” easily caught my attention. Then I read the review by Sara Sklaroff and discovered this was a novel about a worker bee, “Flora 717”. The reviewer said she found herself researching honey bee biology and behavior every few pages to make sure the author wasn’t making up stuff, like how bees make wax. She was pleased to find that the book, to her, appeared to be quite accurate. The reviewer found the book to present a bee’s life with a lot of empathy. The book is used to delve into philosophical exploration of “*the conforming and cozy group-focused industry of the hive*” versus “*Flora 717’s unprecedented freedom within the hive’s rigid class system*” that is the result of her individual abilities, and a “*dangerous ability.... Flora 717 can produce eggs*”!

I haven’t read the book yet, but I may have to put it on my reading list. Christmas, perhaps?

David Morris

BEES IN THE NEWS

DC Beekeepers Alliance in the news

The Washington Post reported a great story, on June 23, about **DC Beekeepers Alliance** members **Charles Ferguson** and **Toni Burnham** (BUMBA member and MSBA President). This dynamic duo captured a swarm of bees in front of the Ritz-Carlton, to an appreciative audience. This was one of 10 or so swarms they caught in June.

Excerpts from “Catch the Buzz” at BeeCulture.com

USDA – Beltsville Bee Lab announces change in leadership

After nine productive years, **Dr. Jeffery Pettis** is stepping down as Research Leader of the USDA-ARS Bee Research Laboratory

(BRL) in Beltsville, MD, and will devote his energy to his research program and collaborations with colleagues and beekeepers. Dr. Pettis guided the Laboratory through the turbulent times of Colony Collapse Disorder and helped build a balanced staff devoted to improving bee management and bee health. He did this while maintaining a strong research program focused on queen and colony traits and managing bees for pollination. **Drs. Judy Chen and Jay Evans** will serve consecutive 120-day terms as Acting Research Leader of the BRL, prior to the naming of a new Research Leader for the group. Through this process the BRL will remain focused on maintaining close collaborations and connections with the beekeeping community as we all strive to reduce the impacts of stress and disease on bees.

Honey Bee Microbial Groups Work Together To Insure Honey Bee Health.

BLOOMINGTON, Ind. -- The digestive tract of the world’s most important agricultural pollinator, the honey bee, is a complex fermenting tank that serves up energy-providing short-chain fatty acids thanks to a host of microbial groups that reside in what an **Indiana University** biologist **Irene Newton** has described as an intensely intertwined and entangled microbiome.

“The honey bee eats a primarily plant-based diet made up of foraged foods such as nectar and pollen,” said Newton, an assistant professor of biology in the College of Arts and Sciences' Department of Biology at IU Bloomington. “Therefore, we focused our analysis on processes relating to carbohydrate metabolism, which are most relevant to the honey bee...”

The researchers identified genes matching 19 bacterial phyla; some are believed to be able to synthesize all essential amino acids and may provide them to other members of the microbial community and to the bees themselves.

The team’s sequencing strategy also uncovered historically overlooked bacterial groups which had never been considered a significant contributor to the honey bee microbiome.

The team found that the bee gut community was able to utilize

amino acids as well as a large array of saccharides and organic acids. Differences found between individual bees suggesting that the bee microbiome composition and function can differ dramatically from bee to bee.

This ezine is also available online at <http://home.ezezine.com/1636/1636-2014.07.28.12.09.archive.html>

Radio frequency ID tags on honey bees reveal hive dynamics

CHAMPAIGN, Ill. — Scientists attached radio-frequency identification (RFID) tags to hundreds of individual honey bees and tracked them for several weeks. The effort yielded two discoveries: Some foraging bees are much busier than others; and if those busy bees disappear, others will take their place.

The findings are reported in the journal *Animal Behaviour*.

Tagging the bees revealed that about 20 percent of the foraging bees in a hive brought home more than half of the nectar and pollen gathered to feed the hive.

"We found that some bees are working very, very hard – as we would have expected," said **University of Illinois Institute for Genomic Biology** director **Gene E. Robinson**, who led the research. "But then we found some other bees that were not working as hard as the others."

Removal of the elite bees "was associated with an almost five-fold increase in activity level in previously low-activity foragers," the researchers wrote. The change occurred within 24 hours, Tenczar said. This demonstrates that other individuals within the hive also have the capacity to become elites when necessary, Robinson said.

Perhaps the less-busy bees function as a kind of reserve force that can kick into high gear if something happens to the super-foragers, Robinson said.

"Our observation is that the colony bounces back to a situation where some bees are very active and some are less active," he said. "Why is that? We don't know. Do all bees have that capability? We still don't know."

This ezine is also available online at <http://home.ezezine.com/1636/1636-2014.07.23.07.08.archive.html>

Excerpts from "ABJ Extra" at Dadant.com

Corn & Soy Neonicotinoids Found Widespread in Midwest Rivers -- USGS News

Insecticides similar to nicotine, known as neonicotinoids, were found commonly in streams throughout the Midwest, according to a new USGS study. This is the first broad-scale investigation of neonicotinoid insecticides in the Midwestern United States and one of the first conducted within the United States.

Effective in killing a broad range of insect pests, use of neonicotinoid insecticides has dramatically increased over the last decade across the United States, particularly in the Midwest. The use of clothianidin, one of the chemicals studied, on corn in Iowa alone has almost doubled between 2011 and 2013.

"Neonicotinoid insecticides are receiving increased attention by scientists as we explore the possible links between pesticides, nutrition, infectious disease, and other stress factors in the environment possibly associated with honeybee dieoffs," said USGS scientist Kathryn Kuivila, the research team leader.

Neonicotinoid insecticides dissolve easily in water, but do not break down quickly in the environment. This means they are likely to be transported away in runoff from the fields where they were first applied to nearby surface water and groundwater bodies.

Of the three most often found chemicals, clothianidin was the most commonly detected, showing up in 75 percent of the sites and at the highest concentration.

The U.S. Environmental Protection Agency has classified all detected neonicotinoids as not likely to be carcinogenic to humans.

National Honey Board Announces Availability of 2014 National Honey Month Press Kits

Firestone, Colo., July 16, 2014 –The National Honey Board

(NHB) is pleased to announce that again, this year, they will be providing press kits to the honey industry in order to promote September as National Honey Month. September has been recognized as National Honey Month in an effort to celebrate this all-natural wonder and its many benefits. The press kit, intended for delivery to local media, will be available at no cost to beekeepers throughout the United States.

The 2014 press kit features information on the benefits of honey, a variety of honey recipes, a *30 Days of Honey* one-page handout which encourages consumption of honey throughout the month, as well as the NHB's newest and most popular honey brochures that showcase honey's versatility. All the resources included in the press kit are perfect for use by editors and journalists preparing honey features and news stories.

The press kits will be made available in early August and may be requested by calling Andrea Brening at the NHB office (800-553-7162), or by sending an email to Andrea@nhb.org.

Club Programs

BUMBA has initiated several programs over the years and we are always looking for members' assistance. For more information about a program please contact an officer.

BUMBA Extractor for members' use

BUMBA now has two honey extractors for members to use. The extractor managers are **Chuck Mewshaw** (ctmmaw@aol.com, 301-249-3229) and **Gerry Jones** (gejones486@verizon.net, 301-577-1365). Each has a complete set of equipment. The Board has established an extractor agreement, rules, and cleaning instructions. Copies are available from the managers. To reserve the equipment, call the managers, bring a \$50 refundable deposit (cash or check upon pickup), and sign the use agreement and inventory form. Please be sure to read what you are signing☺. The first 4 days are free!

Chuck and Gerry report that the extractor has been borrowed 6 times this year, so far. The extractors have always been returned on time and in

good shape. To reserve your use of either of the extractors, simply email or call Chuck or Gerry!

www.BUMBAbees.com

Check out the club web site maintained by **Toni Burnham**, www.bumbabees.com. You will find meeting schedules, newsletters, information and membership application forms (payments are still by mail or at a meeting.) *We need content, pictures, ideas, suggestions and help with administration.* If you have any interesting photos to add to the photo gallery, send them with a short description or story to Toni at phang@tonitoni.org.

www.BUMBAbees.com/forums

Check out a new feature. Thanks to Scott Seccomb and Toni Burnham, we have a private web forum on the BUMBA web page for members' use.

FREE STATE Bee Supply

Your local bee supply dealer

Free State Bees, 2420 Mill Hill Rd

Waldorf, MD 20603-3752

Phone: 301-580-9313.

Email: Freestatebees@gmail.com

Call or email if you have any questions.

Please be sure to call ahead to set up a time to visit! As always, thank you for your continued support!

Dave and Laura Polk

BUMBA Meets at - Watkins Park Nature Center

BUMBA annual dues are \$15. Our regular meetings are held on the 1st Thursday of the even months at the **Watkins Park Nature Center, 301 Watkins Park Drive in Largo**. From Route 301 or I-495 take Central Ave. (Rte 214) to the intersection with Enterprise Rd. (Rte 193). Turn south onto Watkins Park Dr. and go ½ mile to the park. Follow the road all the way to the back to the Nature Center. We thank the Nature Center Staff for their assistance.

For information about the Nature Center, please call **301-218-6702**

Electronic Newsletter

As with all organizations cost cutting is always on the table. One way we reduce our expenses is by eliminating the printed newsletter mailed 6 times a year at a cost of roughly \$1 per newsletter. People who don't have email, of course, continue to receive it. If you are willing to depend on email delivery, please inform our editor, **David Morris**, via email. Help keep club \$\$'s in the bank for club activities

Notice of your dues will either be on your label or in your email message

Every club needs a little money to keep it going. Although **BUMBA** is solvent, dues are needed to cover meeting room rental, speakers, refreshments and the newsletter. **BUMBA** has raised its annual dues to **\$15**. So we hope you'll remember to bring your cash or check to the next meeting. Jutta loves to find checks in the mailbox. Send your dues for \$15 to:

Jutta Dunaway, **BUMBA** Treas., 11814 GALAXY LANE, BOWIE, MD 20715

NAME: _____

ADDRESS: _____

CITY: _____ ST ____ ZIP _____

TELEPHONE: _____ EMAIL: _____

Check if you are willing to help out with a club activity or program

Club Calendar

Put these dates on your **2014 BUMBA** Calendar:

August 7, BUMBA Mtg, 7:30 PM

October 2, BUMBA Mtg, 7:30 PM

November 15, 9:30AM, MSBA, Annapolis

December 4, 6:00 PM, BUMBA Holiday Party

David Morris, BUMBA Editor
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