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# May 2016



## NORTHEAST NEW JERSEY BEEKEEPERS ASSOCIATION OF NEW JERSEY

A division of New Jersey Beekeepers Association

President	Frank Mortimer	201-417-7309	3 <sup>rd</sup> V. Pres.	Karl Schoenknecht	201-891-0947
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2 <sup>nd</sup> V. Pres.	John Gaut – <b>Mentor Coordinator</b>	201-961-2330	Treasurer	Bob Jenkins	201-218-6537

Meeting on: **Friday, May 20th at 7:30 PM**, Location: **Ramapo College of NJ, 505 Ramapo Valley Rd., Mahwah, NJ 07430**



*Bee Enthusiasts & Bee Curious always welcome!*



*Weather permitting.*



Please join us on **Friday, May 20th** when we continue with our BeeTalk® Series. The topic of discussion will be Hive Inspection, Summer Management and Swarm-a-geddon! Please join us this Friday to be educated and entertained!

### **Yearly Dues are payable now!**



Your \$25 yearly dues goes to fund all of our activities, our post meeting refreshments, club supplies and all other necessities required to bring the best possible programs, headline speakers, classes, mentoring and to introduce new beekeepers to the art and craft of the hobby we all love so much. See Bob Jenkins to make your timely dues payment and from all the officers,

**“Thank you for your continued support.”**





## Message from the President:

Swarm, swarm everywhere a swarm  
Flyin' outta my hives, breakin' my mind  
Do this, don't do that, can't you stop the swarm?

Hello Northeast NJ Beekeepers!

Summer of 2016 will go down as the Summer of Swarms. It has been about five years since I've seen this many swarms in our area. Back in 2011, our season had some week-long rainy days, and when you visited your hives during the few non-rainy hours you could just see how grumpy bees get when stuck inside for too long. It's like having a bunch of 10 year olds hopped-up on sugar, standing at the door trying to make the rain go away.

Swarming is caused when the bees feel they are too crowded inside the hive, and prolonged rain keeps more bees inside their hive which only exacerbates the problem. Also, for new Beekeepers, it is also important to remember that bees do not count foundation as more space, only drawn comb counts as space. So, if you are just starting out, it's important to go into your hives to see where your bees are, feed to encourage comb building--especially when it's raining, and add your next box BEFORE it is too late.

For established hives it's always important to remember that when bees are at the top of the hive, with only the inner cover above them, they feel like they have run out of room and this too can cause swarming. The best way to prevent the bees from feeling they have run out of room is to remember to reverse your boxes in March to prevent swarming in May. (So if next year, you're debating if you should reverse your boxes, remember the Summer of Swarms.)

I also think that putting honey supers with drawn comb on early can prevent swarming, as you have given the bees lots of extra space. One point of debate when you put honey supers on is should you use a queen excluder? If you're using your supers to also prevent swarms, then the answer is no. Using a queen excluder can also create the "this is too crowded" feeling because you are limiting where the queen can go. BUT, if you don't use the excluder, you will have to deal with brood in your honey supers. Personally, I'd rather deal with the brood than my hives swarming. Especially when the queen lays early in the season, as I have found that as soon as the brood hatches out, the bees will go back and fill those cells with nectar, so I end up with honey supers filled 100% with honey and 0% brood.



The Super Swarm box complete with all the swarm supplies you'd ever need.

**B**ack in 2011, I wasn't really prepared to catch swarms, so when I got a call, I had to scramble to get everything I needed to go catch one. Usually, I also forgot something or wished I had packed one more item to make my swarm catch go more smoothly. So, in early 2012, I created my super swarm box. It's a nice-sized cardboard box, and I cut out ventilation windows on all four sides, then covered the "windows" with screen, so the bees had plenty of air, and I didn't need to worry about them overheating or getting out. I also reinforced the box with tape to keep it sturdy because I planned on using it to catch a lot of swarms. I then filled the box with everything I might need, garden shears to cut branches, gorilla tape to seal the box once the bees were inside, a bottle of sugar syrup to spray the swarm, and even brochures on swarms to give to anyone who wanted to understand what was happening. Once I had my super swarm box, complete with all the swarm supplies you'd ever need, I

put it in the trunk of my car, so I would be ready for that call. And man was I ready!

When I started hearing about swarms in

other parts of the US, I'd get even more excited, thinking soon it would be my turn. Days turned to weeks which turned into months and not even one call. So, I put my super swarm box, complete with all the swarm supplies you'd ever need, away for the season. The following spring, I pulled out my super swarm box, complete with all the swarm supplies you'd ever need, and put it back in the trunk of my car, and waited. And, I waited, waited for two more seasons, and still, I was never able to use my super swarm box, complete with all the swarm supplies you'd ever need. Four years in a row, I had put everything in my car so I'd be ready for that swarm call and nothing, not even one call.

As this year began, I saw my super swarm box, complete with all the swarm supplies you'd ever need, sitting in my basement mocking me. It was mocking me! As it was sitting there, all cozy on its shelf, I could tell it was thinking, "so when does my summer long ride around in your car begin?" So right then and there I decided, not this year swarm box! This year you're going to stay right where you are. This year, I'm not wasting a bunch of my trunk space just so you can go joyriding around, enjoying the summer sun. This year is going to be different!

Boy was it different. Starting in March, I started hearing about swarms in our area. But I wasn't going to budge, swarm box stayed in the basement. April came in like a lamb, but left with every other bee in all those swarms I kept hearing about!

But finally on Mother's Day, I got the call! Five years after its completion, I was finally going to be able to use my super swarm box, complete with all the swarm supplies you'd ever need! I arrived at the home where the swarm was taking up temporary residence. I handed the homeowners several copies of the pamphlets I'd been hauling around for the past 1/2 a decade. I positioned the super swarm box underneath the swarm. And man oh man, it was a beautiful swarm. It was teardrop shaped, which I'm convinced represented tears of joy because the bees were THAT happy they would get to be inside the ultimate swarm box. I used the garden sheers to cut the few branches the swarm was attached to. Then, like they were on the backs of angels, my swarm glided smoothly into the box. I closed it up, used the gorilla tape to keep it shut, and I was waving good bye to the homeowners less than 15 minutes after arriving. I drove back to my hives and poured the bees into their waiting new home, and as they slid out of the box, many of the bees looked over at me and gave me tiny bee thumbs-ups to let me know how wonderful it was to ride in the super swarm box.

I'm not sure if catching a swarm will ever go that perfectly again for me. I'm back to keeping the super swarm box, complete with all the swarm supplies you'd ever need, in my car.

So the one thing I know for sure is:

With that swarm box back in my car, there is no way I'll be getting another swarm for the next five years.

**Frank Mortimer**  
**President, Northeast NJ Beekeepers**



## Club Tee Shirts

This just in! Get 'em while they're hot! The Northeast New Jersey Beekeepers Association now has their new tee shirts. They will be on sale at the next meeting for \$20. Show your support and Bee Pride by purchasing one of these classic Tees. See below:



Close up (in gray):



## Why are there so many swarms?

John A. Gaut

I do not remember ever having this many swarms in a season. Last month I predicted there would be more swarms this year; I did not expect this many though. It is crazy! Why are the bees swarming so much? And why is there more than one swarm from some colonies??

There are several factors this year that allowed the bees to swarm more than usual. Swarming is a natural process for honey bees; it is their way of reproducing. In the spring, the top priority for a colony is to reproduce. In the Spring, the colony's goal is not aligned with the beekeepers goal (honey production). An important factor contributing to swarming is the colonies are healthy; only strong healthy colonies swarm. Beekeepers are keeping mites under control resulting in healthy colonies. Another factor is we had a near normal winter; overall the actual high and low temperatures from January through March were near the historical average. Most colonies went into winter with plenty of honey reserves and came into spring with plenty of honey left in the hive. The beginning of April was warmer than normal; pollen was available early so the colonies began building large brood nests early. The populations in many hives grew quickly. With the warm April weather we also had an early nectar flow; many beekeepers were pleasantly surprised by the nectar coming in. Then we had an extended period of cool, rainy weather, which forced the colonies to hunker down in the hive for at least a week, just at the same time as a lot of brood was emerging. The colonies were packed with bees before the rain, and even more congested during the cool rainy period in early May.

The colony's instinct in the spring is to reproduce. It is Mother Nature at her finest. The colony (a fascinating super organism) has several criteria for swarming preparation. After the colony divides into two, both must survive, or they have not met their mission. (If the original colony or the swarm does not live, they have not reproduced.)

- Is there enough honey? The swarm will include most of the older forager bees leaving behind the younger workers to care for the brood. The colony will need honey but will not be able to collect the nectar so honey reserves are needed.
- Is the population large enough to split the colony in two? There must be enough bees to care for the brood left behind and also enough bees to establish a new colony quickly, including building comb and gathering nectar and pollen.
- Are nectar and pollen available in the area? The swarm brings some honey with it; bees engorge themselves with honey before leaving the hive. (And maybe some pollen; some returning pollen foragers get caught up in the swarm frenzy. ) The honey will last only a short time and will be consumed mostly to build comb. Nectar and pollen are needed immediately to continue building comb and raising brood.
- Are there viable queens ready for the colony of bees left behind? The original queen goes with the swarm. The bees left behind will need a queen. The colony starts raising multiple queens in preparation for the swarm. It takes 8 days from when the queen lays an egg in the queen cell cup until it is capped. Once a queen cell is capped, the colony is ready to swarm. There are usually many queen cells in various stages of development.

Typically, as the colony prepares to swarm, it starts by storing adequate honey above the brood nest. If there is adequate honey above the brood nest, there is abundant forage (nectar and pollen) and there is a large populous colony (crowded conditions especially in the brood nest), the swarming impulse starts. The queen lays eggs in the queen cups (there are always some ready...). Once the swarming impulse starts and queen cells are started, the colony will begin feeding the queen a reduced diet. The queen will stop laying eggs and her body weight will reduce so she can fly (her large ovaries are significantly reduced). As brood emerges, the colony begins "backfilling" the brood nest with nectar for the nurse bees left behind. (Backfilling is not the cause of swarming; it is a preparation step. The emerging brood needs the nectar close by and will consume it quickly.)

In summary, this year we had strong healthy colonies with pollen and nectar about 2 or 3 weeks earlier than normal, allowing the colonies to start raising brood during a warm period. Colony populations increased quickly in late April, and then in early May it was cool and rainy. The large populations were packed in the hives, especially in the brood nests during the cooler days and nights, reinforcing the swarming instinct. The queen laid eggs in the queen cups and the swarming impulse was underway. Once the weather cleared in early May and the new queen cells were capped (or close to being capped), about half of the bees swarmed out with the mother queen.

So why did some colonies swarm more than once? Many times the first virgin queen to emerge in the parent colony will search out and destroy queens that have not emerged. In large colonies, not all of the queens can be destroyed quickly enough so there are multiple virgin queens. (Sometimes the bees will protect a queen in her cell from attack as insurance.) An "afterswarm" includes one or more virgin queens and is usually smaller than the "prime" swarm. Tom Seeley finds most afterswarms do not survive in the wild and speculates afterswarms maybe a way for the colony to eliminate multiple virgin queens.

I may combine several small afterswarms together to make a more viable colony. I will let the queens mate first and pick the best or just let them fight it out.

There is a lot more to swarming. While weather as a major factor this year, other factors that could contribute to swarming include inappropriate use of a queen excluder, the genetics of the queen and the age of the queen (Older queens typically have reduced pheromone levels.) Not everyone agrees on the mechanisms for swarming and swarm intervention techniques (Surprise!). If you want to learn more, I would suggest:

Swarm Essentials by Stephen Repasky, (ISBN: 9781878075321) A good overview for the beginning or intermediate beekeeper including swarm intervention options.

Swarming is exciting! (Some would say frustrating and even exhausting after capturing multiple swarms.) Swarming is part of Mother Nature and bee biology. While we try to work with Mother Nature, she cannot be fooled. Often when a colony swarms early in the season, there is only a small impact on honey production. (Multiple afterswarms will result in a bigger impact.)

For the beekeeper there are some positives too.

- Swarms are primed to build comb. I give a swarm a frame of drawn comb (if I have it) so they can store pollen and nectar quickly and the queen can start laying as soon as she is ready. The other frames are foundation. The new colony draws out the foundation quickly and beautifully with no drone cells.
- The parent colony will have a freshly mated, vigorous queen.
- And many beekeepers have significantly increased the number of hives this spring. Even a small swarm hived in a nuc box can be a valuable resource for the beekeeper.

Now we will see if the remainder of the season has enough nectar to build these new colonies and still produce a nice honey crop. The wet weather we had in early May should help.



**1,503 Strong!!!**

We quickly blew through the 1000 member milestone and have just smashed the 1,500 mark. Woo-hoo! We are, as of this writing 1,503 members strong, and growing on our Facebook page! Be sure check it out. See the great pics and stories posted by the Facebook fans we have at our page.

**Remember:** <http://www.njbees.org> is your website! Check that site for everything Northeast New Jersey Beekeeping!



❖ **Volunteers** ❖

<b>Celia Miller</b>	Refreshments – Cakes, cookies, brownies, tea, etc.
<b>Jennifer Phillips</b>	Refreshments – Cakes, cookies and other treats
<b>Billy Neumann</b>	Club photographer
<b>Hugh Knowlton</b>	Workshop/Event coordinator and presenter
<b>Mike Miller</b>	Club apparel
<b>Emma Stein</b>	Resident artist
<b>Bob Slanzi</b>	Meadmaster

**Next Month**

The Northeast NJ Beekeepers will proudly present our special guest, NJ State Apiarist Tim Schuler. Tim will discuss mite treatments. All beekeepers should attend as there is a lot for all of us to learn.

**Bee There!!**



Our own Det. Dan Higgins about to "collar" his first swarm of 2016.