

# THE MARIN BEEK NEWS

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March 2013

## What You Missed

Our last meeting featured a talk by Dr. Kirk Visscher, associate professor of entomology at UC Riverside. Dr Visscher's presentation was about the honey bee dance.

Honey bees use dance to communicate nectar sources to other hive mates. The initial bee will give other bees a sample of the nectar and then use the waggle dance to communicate the direction and distance to the food source.

The returning forager who has found a new food source will make a series of waggle runs on the comb to communicate the direction and distance to the food source to her hive mates. The waggle dance consists of walking in a certain direction while wagging her abdomen. The bee then circles back to the beginning location and repeats the dance several times. The length of the waggle dance indicates the distance from

see What You Missed on page 2

## What's the Buzz

Our next meeting will be on Thursday, March 7, 2013 at the American Legion Log Cabin, 20 Veterans Place, San Anselmo, CA starting at 7:30 pm.

Our guest speaker will be Kirk Webster. Kirk is a master natural Queen Breeder living near Middlebury, VT. His queens are selected for VSH (Varroa Selective Hygiene). Colonies that display this characteristic detect infested larvae and then uncap & remove them.

### Upcoming Meetings:

#### April 4, 2013

[Heather Mattila](#). Heather Mattila is an Assistant Professor in the Department of Biological Sciences at Wellesley College. Professor Mattila's research focuses on the role that intracolony (within-colony) genetic diversity plays in the organization of communication and division of labor in honey bee colonies.

#### May 2, 2013

Eric C. Mussen, Ph.D., Extension Apiculturist University of California Davis  
Dr. Mussen will speak on the current state of beekeeping.

#### June 6, 2013

Wyatt A. Mangum (Ph.D.) internationally-known, top-bar hive beekeeper and monthly columnist for the *American Bee Journal* on Honey Bee Biology, Dr. Mangum will speak about top-bar hive beekeeping.

Dr. Mangum will also have copies of his new book, "Top-Bar Hive Beekeeping: Wisdom & Pleasure Combined", for sale during the meeting.

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the hive; while the direction of the dance indicates the direction to the food source, relative to the sun; with vertically up on the comb equal to the sun's direction. The waggles are believed to be felt as vibrations by the other bees since there is no light in the hive. In effect, the dance is a miniature reenactment of the flight to the food source.

The waggle dance was discovered by Karl von Trisch in the 1940's.

Dr. Visscher spent a summer as a graduate student working in the Arnot Forest in the northeast United States. He set up an observation hive within a trailer and observed the foragers' dances during the day.

He discovered that the majority of the foraging takes place within 1½ miles of the hive but sometimes went as far as 3 miles. He also observed that, by use of the waggle dance, the hive was able to monitor forage in a tremendous area with fewer bees, holding foragers in reserve for when a viable food source was found.

To test the benefits of dance language Dr Visscher set up an experiment that deprived the bees of the dance language information.

First, he set the hive horizontally and provided various diffused light sources. He then set up feeding stations so that he knew the distance and direction to the food source. The bees became disoriented because of the diffused light. This caused them to dance in various directions. He discovered that if you only provide one light source then the dance becomes oriented to the single light. In a normal hive the bees dance vertically on the comb with the sun direction as up (using a sense of gravity). Foraging was found to be much more effective when the bee dance was oriented.

He also observed that the vector information of the dance had an impact on recruitment to the feeder. The diffused light experiment reduced the number of recruited bees to the food source since the dance information was not as consistent.

Dr Visscher also observed that distance affected the recruitment of bees in the diffused light experiments. More recruit bees were able to find the food source if it was closer to the hive.

Through his experiments, he found that the bee dance became more important to the success of foraging at certain times of the year. In the summer, during high nectar flow, the dance language was not as important. In autumn, during the nectar dearth, it was also found to not be very important. However, in winter, when food sources may be further away, it became

important.

The bee dance is also used in swarm decision making. This was first observed by Martin Lindow in the 1940s. He noticed that scout bees would report possible nest sites by performing the waggle dance on the outside of the swarm cluster.

Swarm decision-making is "high stakes" for the colony. The colony's future depends on good nest site choice. In swarms, about 10% of the bees become nest site scouts, probably a subset of the forager bees. They search out potential sites and report back to the swarm using the waggle dance. Through the dance, a scout bee recruits other scouts to examine the site she has found. No single bee decides on the new nest site and usually the dancing by the scouts becomes unanimous for one site before the swarm takes off for its new home.

Dr Visscher has observed that the waggle runs increase with the number of trips for nectar foragers, while the number of waggle runs decrease with the number of trips for nest site scouts.

Dr Visscher closed by stating that the bee dance is a very important tool to the honey bee. It allows the bees to quickly communicate the location of food sources to the hive and increases recruitment of foragers to the sources. This allows the hive to increase their food collection capabilities.

## Time to Split

It is early in the bee season, but not too early to begin thinking about whether you want to join the Split Squad this year. This is the third year for the ad hoc, volunteer Split Squad. It was formed for those who want to learn how to split...but mostly to encourage people to find, propagate and share local survivor bees. (This means bees who can survive with NO treatment).

For more information about the Split Squad and how you can join, please contact Cynthia OFF THE BUZZ at: [cynthiasps@gmail.com](mailto:cynthiasps@gmail.com). Cynthia will put you on the list and send out more information.

## Spring Beekeeping Classes

This list of classes was collected from various sources for the benefit of our members, because education is a key ingredient in beekeeping. The more you know the better you'll be.

### **Beekeeping Basics with Bonnie Morse**

**Saturday, May 18<sup>th</sup>**  
**9:30 am – 12:30 pm**  
**Location TBA**

You have your bees, now what?? Learn tips and techniques for using smoker, bee brush and hive tool. We will look into how to work your frames and what to be looking for to determine health of your queen and the colony as a whole. As urban beekeepers, it is important to prevent swarming (to the best of our ability), so you'll learn what causes swarming, how to prevent, and how to recognize early warnings that a colony is making preparations to swarm.

**To Register:** email Bonnie:  
bonnie@bonniebeecompany.com

### **Make Your Own Mead! with Robert MacKimmie of City Bees**

**Sunday June 9<sup>th</sup>**  
**3:30 pm – 6:00 pm**  
**Sticky Art Lab, 1682 University Ave (at McGee),  
Berkeley**

Learn the secrets to making mead--and take home your own gallon to ferment at home--at this hands-on class taught by apiarist, Robert MacKimmie of City Bees. Speculated to be mankind's first fermented beverage, mead is easy to make at home, yet fine enough to serve at special occasions (read: no better way to impress guests at your next party). Participants will mix their gallon of mead under Robert's ever-watchful eye, ensuring delicious results. The class will also discuss and review more advanced recipes for Cyser (apple and honey wine) and Melomel (fruit and honey). Best of all, plenty of tasty samples will be provided. Each participant goes home with a gallon jug of mead and recipes, ready to ferment!

**Fees:** \$60 (all ingredients & equipment provided for a gallon jug of mead)

**To Register:** Register online at:  
<http://biofueloasis.com/workshops/>

### **Fall Hive Management & Harvesting Honey with Bonnie Morse**

**Saturday, July 20<sup>th</sup>**  
**9:30 am – 12:30 pm**  
**Location TBA**

Late summer can bring a variety of problems including increasing mite counts, yellow jacket problems, and lack of forage. Learn to recognize the signs and symptoms and how you can assist the colony during difficult times. Your bees will have already begun winter hive preparation. You should be thinking ahead, too: how much to reduce the hive, timing for doing so, simple things you can do to help bees during winter, signs you should recognize that your colony is in trouble. Fall is also the time of year to determine how much excess honey you can extract. We will review this as well as methods of removing frames, extracting honey, bottling honey and cleaning the wet frames.

**To Register:** email Bonnie:  
bonnie@bonniebeecompany.com

## From The Librarian's Desk

Many thanks to our generous donors who have recently made the following titles available to the Club library:

First Lessons in Beekeeping by Dadant  
A Book of Bees by Sue Hubbell  
Beeing – Life, Motherhood and 180,000 Honeybees by Rosanne Thomas  
The Beekeeper's Lament by Hannah Nordhaus  
Beekeeping – A Seasonal Guide by Ron Brown  
Beekeeping: A Unique Industry – a collection of 14 VHS tapes from Ohio State University

Everyone returning a library item at this week's meeting will be eligible to win a fun raffle prize. Thanks in advance for bringing your borrowed items back so that others in the Club can enjoy!

## Seventh Annual Bee Symposium



### **Pollinator Habitat and Forage**

A Benefit for Partners for Sustainable Pollination

The theme for the 2013 Bee Symposium is  
"Pollinator Habitat and Forage".

Saturday, March 9th, 2013  
9:00 AM to 4:30PM  
Sebastopol Center for the Arts  
(formerly the  
Sebastopol Veterans Memorial building).

282 South High Street  
Sebastopol, California

Tickets  
\$35.00 in advance  
\$40.00 at the door

For more information and to order tickets go to  
[www.beekind.com](http://www.beekind.com)

## Club Bee Order



**Installing queen cells into the nucs at Bonnie Bee & Co.**

Once again the Nuc decided to support the efforts of our club members Bonnie and Gary Morse, owners of Bonnie Bee & Company, to provide nucs with queens mated from local Marin stock.

Five deep\* frame nuc (nucleus) colonies are \$150 each and will be available late April - mid-May (weather dependent).

\*Some medium frame nucs will be available. Request when ordering.

Order your bees directly from Bonnie Bee & Company by contacting Gary Morse at [gpmorse@comcast.net](mailto:gpmorse@comcast.net), telephone: 415-699-5856.

For more information visit  
[www.bonniebeecompany.com](http://www.bonniebeecompany.com)

## HIVE SPLITTING WORKSHOP

Saturday, March 16, 2013

**Rain Date: March 17 or 23, 2013**

**1:00 PM to 4:00 PM**

**Corte Madera, CA**

Association member Dave Peterson will be holding a hive splitting workshop on March 16th, 2013. The class will be at his apiary in Corte Madera. The class is intended for Marin Beekeeper Members who are relatively new to beekeeping and Members who are not familiar with making splits and would like to learn more. A donation of \$20 to the Club is required, **in advance**.

There will be a short classroom session and then we will move into the apiary. We will discuss the various methods of making splits, as well as the when, why and how. We will create several hands on splits from the hives in my apiary in Corte Madera, directions will be provided. Everyone will be handling frames of bees, so **bring your bee protection clothing** -- whatever keeps you comfortable.

After the splits have successfully raised a new queen and she has successfully mated, Dave will make some splits available for purchase. They will be offered to the workshop participants first.

You may reserve a spot in the Workshop by sending Dave an e-mail with your request and mailing the donation. Please send your check or money order payable to Marin Beekeepers to Dave's PO Box below.

David Peterson  
dpeterson307@aol.com  
(415) 596-7124 Cell  
PO Box 1445  
Ross, CA 94957

## NewBees 101 Class

Saturday, April 27, 2013

**Rain Date: May 4, 2013**

**10:00 AM to 3:00 PM**

**307 Upper Toyon, Ross**

Association member Dave Peterson will be holding a beginning beekeeping class, "NewBees 101" on April 27, 2013. The class will be at his house in Ross. The class is intended for Marin Beekeeper Members who have bees but are new to beekeeping, or plan to start with bees in the spring. A donation of \$40 to the Club

is required.

There will be a discussion touching on all aspects of beekeeping necessary for a beginner to get started with their own hive(s). We will spend a couple hours in discussion and then go into the apiary. NewBees 101 is intended to provide basic knowledge about bees and beekeeping but also to provide some practical experience working with the bees so as not to be intimidated when working in your own hives. Everyone will handle frames of bees. We will learn to spot the queen, identify each caste of bees, learn to recognize eggs and larva as well as capped brood cells and capped honey cells.

Reserve a spot by sending an e-mail to [dpeterson307@aol.com](mailto:dpeterson307@aol.com).

## Fair Exhibit Prep Workshop



### Marin Beekeepers Association

**County Fair Exhibit Preparations: April 20<sup>TH</sup>, 10:30am – 2:30pm, Novato (location TBD), \$30. Register on the association website: <http://marinbees.org/wp/workshops-2/>.**

Have you ever wanted to enter you hive products in the fair but didn't know how to prepare your entries?

Join previous fair award members of the Marin Beekeepers Association to learn how to prepare your hive products for entry in the fair. Three different time slots so you can pick the workshops in which you are most interested. Choices include: preparing your honey to be award winning, processing your wax, tapered wax candle making, molded wax, how to build a simple stand for your frame honey, and more!

Half fees from this workshop will go to the Marin Beekeeper's Association.

## Workshops with Kirk Webster

Our March speaker, Kirk Webster, will hold two workshops in conjunction with his visit to Marin Beekeepers. Space is limited, so don't delay!

Beginner Workshop with Kirk Webster, Saturday March 9th, 9am - noon  
\$50 per person, limit 20 people  
Basic hive inspection techniques and using your tools.

Intermediate / Advanced Workshop with Kirk Webster, Saturday March 9th 1pm - 4pm.  
\$50 per person, limit 20 people  
More advanced inspection techniques and diagnosis of pest and disease problems.

**Register on the association website:**  
<http://marinbees.org/wp/workshops-2/> or contact Richard Hyde at [rh@hyderanches.com](mailto:rh@hyderanches.com)

**The afternoon workshop is sold out, but space is still available in the morning workshop. Contact Richard to sign up.**

## Hive Tips

- **Prevent your bees from swarming: make sure there is adequate space in the brood chamber.**
  - Strong hives are building quickly. If your bees are starting to get crowded, add more space. Most importantly – be sure there is contiguous space in the brood chamber. If you add additional space, but there is only honey between it and brood area, you will not prevent brood area congestion – which is the cause of swarming.
  - Bees not quite ready for more space above? But you are concerned about swarm prevention? Add space BELOW. A super below your other hive bodies will give queen potential space to expand into and also give space to returning foragers.
- **Do your bees need food?**
  - Colonies (particularly smaller ones) that

overwintered successfully may be building up quickly with our warm weather and available forage. But, some may be doing so hand to mouth. This could even lead to starvation if we get successive days of rain and bees are kept inside – and capped brood starts to emerge. Consider feeding if you do not see ample pollen or nectar stores.

- **Considering splitting?**
  - Keep in mind that research shows that well mated queens do better in the long term (we'll hear more about that from Heather Mattila at the April meeting). That means plenty of drones out flying during queen mating flights. It takes 24 days for drones to go from an egg to cell emergence. It takes an additional 14 days to reach full maturity.
  - Drones are flying now and it is more than likely that a queen could mate, the question is whether the time is optimal for her to do so.
- **Time to set up your bait hives!**
  - First swarm of the season was reported on February 22<sup>nd</sup>. If you plan to set out bait hives this year, now is a good time to do so.
  - Review Tom Seeley's book, **Honeybee Democracy**, for complete details on what his research has shown that swarms prefer in a nesting cavity.
  - No time to read? Local beekeepers report success with the following set up:
    1. Deep hive box
    2. A couple of frames with empty built out combs (if you have them) in the center surrounded by empty frames with starter strips (or just empty space – but you'll need to add frames soon after they move in or else they will start building from the top of the box).
    3. Entrance reducer set to medium
    4. Box above the ground 2-3' (higher if you are able)
    5. Optional: Spray lemon grass tea (boil lemon grass until you make a dark tea) or other substances mimicking queen pheromones on the top of the frames and entrance of the hive.
    6. Wait to observe scouts!
  - Have a bait hive tip? Post it to the Buzz!