THE MARIN BEEK NEWS

Volume 4, Issue 2 February 2012

What You Missed

Our last meeting featured a talk by Dr. Thomas D. Seeley, PhD, Professor and Chairman of the Department of Neurobiology and Behavior, Cornell University. Dr. Seeley spoke about his current research on honeybees in the wild, comparing feral and managed honey bee colonies.

Dr Seeley has recently been studying feral colonies in the Arnot Forrest of New York. In particular, he has been studying how bees live without intervention from beekeepers. His research compares managed vs. wild colonies. He has focused on four specific areas - colony spacing, nest site, nest design, and colony survival, and the consequences of these differences.

Colony Spacing

In nature, bees are spaced much further apart than bees kept in apiaries. From surveys he conducted in the 4500 acres of the Arnot Forrest, he was able to locate 11 feral colonies in 1978, 12 feral colonies in 2002 and 15 feral colonies in 2011. This represented a fairly stable feral population where the average distance between colonies was about ½ mile.

In comparison, managed bee hives are often located within a few yards or even feet from each other with

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What's the Buzz

Our next meeting will be on Thursday, February 2, 2012 at the American Legion Log Cabin, 20 Veterans Place, San Anselmo, CA, starting at 7:30pm.

Diana Sammataro, Research Entomologist
USDA-ARS Carl Hayden Honey Bee Research Center.

Diana will discuss "Honey Bees and Mites".

Upcoming Meetings:

March 1, 2012

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

April 5, 2012

Katie Lee, the Bee Informed Project

Katie will speak about "The Bee Team: Helping CA Bee Breeders Select Stock"

May 3, 2012

Serge Labesque, local beekeeping guru

Serge will speak about spring beekeeping.

June 7, 2012

Dan Stralka, Marin beekeeper

Dan will be discussing survivor stock bees.

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many hives clustered together in a bee yard. The consequences of the hives being farther apart are less drifting between hives, less spreading of disease, less robbing and a more avirulent varroa. Avirulent parasites and diseases reproduce weakly so that they can stay healthy and produce offspring without destroying the host organism. In contrast, virulent parasites and diseases reproduce in such numbers that they end up overpowering the host organism. The result is that both organisms die. Examples of virulent species in humans are malaria and some strains of influenza.

In apiaries bees drift if their colony becomes weak, causing horizontal parasite transmission among hives. In the forest if the hive dies then the varroa mites also die, so the mites tend to be avirulent. Feral colonies caught in bait hives in the Arnot Forest of New York State displayed mite levels that were not excessive. In recent studies, drone drifting in colonies spaced 100 meters apart was virtually nil.

Honey Bee Nests:

There are several differences between feral nests and managed hives. The nest openings selected by feral hives tends to be less than four square inches. The standard opening in a managed colony is 12 square inches. A smaller entrance is easier to defend against predators and robbing bees.

The openings in natural colonies tend to be located about 30 feet from the ground, while the openings in colonies in an apiary are often about six inches from the ground. Higher openings are easier to defend against animals searching for honey.

The cavity size for feral hives average eight to twelve gallons in volume, about the size of one deep hive body. The volume of a managed hive averages 20 to 40 gallons. Smaller cavity size encourages swarming as the bees reach the capacity of their space faster. Larger broodnests encourage larger colonies. This leads to higher honey production but it may also lead to premature exhaustion of the queen.

Feral hives tend to be tall and slender, while the Langstroth hive tends to be short and squat. The bees are able to manage the temperature more easily in a tall and slender shape; hence, there is better winter survival.

Comparing Nest Structure:

	Managed Hive	Feral Hive
Comb Area	38 sq ft	11 sq ft
% Drone Comb	1% to 5%	17%
Cell Size	5.4 mm avg.	5.2 mm avg.
Propolyzed Walls	No	Yes

Dr. Seeley spoke about a number of factors that he would like to study that may lead us to keep bees in a different way. He acknowledged that these changes may lead to less honey production but could improve the health of our bees.

1. Greater colony spacing – reducing horizontal transmission of disease and parasites.

2. Smaller hives and smaller colonies – less honey and more swarming but better bee health.

3. Taller hives – more equipment costs but better winter survival.

4 Roughened interior surface of the hives – encourages bees to propolize the hive and provide additional protection against disease.

5. More drone comb (He suggested one comb in ten should be drone size cells) – better queen mating but it might lead to a higher varroa population.

6. Smaller comb cells – may reduce the varroa population.

When asked how he was able to find so many feral colonies Dr Seeley explained that he would search for a patch of flowers and find honey bees foraging among the flowers. He would trap some bees in a box that contained comb with honey. After the bees had gathered some of the honey, he would release them and watch where they would go. The bees would return along with more foragers until there was a strong line of bees coming to gather the honey. He would mark some of the bees so that he could determine roundtrip time, which would allow him to estimate distance to the hive.

Club Bee Order

This year the Nuc decided to support the efforts of our club members Bonnie Bollengier and Gary Morse who have started Bonnie Bee & Company to provide nucs with queens mated from local Marin stock.

Five deep* frame nuc (nucleus) colonies are $140 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: gpmorse@comcast.net, tel: 415-699-5856, www.bonniebeecompany.com

Dues are Due

A reminder that annual dues for 2012 are now due. Dues are still just $20 per year. Dues become delinquent if not paid by the January 5th Meeting. The Buzz will be purged after the February meeting and non-renewed Members will be transferred to the Prior Member List. The best way to renew your Membership is to mail your $20.00 check, payable to Marin Beekeepers, directly to our Treasurer:

Mary Nordquist
2072 Hatch Rd.
Novato, CA 94947

Or, you can make payment to David Peterson at the door before the meeting.

New members and members with new contact information should be sure to include: address, phone number, and an e-mail address if you want to be on the Buzz.

Membership includes free admission to all meetings, access to the Club's honey extracting equipment, and subscription to the Club's "MarinBuzz" listserv, which serves as an online discussion forum and a way to notify Club members of local bee swarm information.

Sixth Annual Bee Symposium

SMALL SCALE BEEKEEPING

A Benefit for (PANNA) Pesticide Action Network of North America
The 2012 Bee Symposium is dedicated to the efforts of small-scale and local beekeepers

Saturday, March 10th, 2011
9:AM to 5:PM
Sebastopol Veterans 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

Workshops

Diana Sammataro

BEEKEEPING EQUIPMENT – HOW TO HARNESS ITS FULL POTENTIAL

Date: Saturday, February 4, 2012
Time & Location: 9:30am – 12:30pm or 1:30pm to 4:30 pm. Draper Farms, 11 Sacramento Avenue, San Anselmo.

For more Information contact Richard Hyde - rh@hyderanches.com

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