SEMBA NEWS

Volume 19 Number 5 Newsletter of the Southeastern Michigan Beekeepers' Association
August - 2009

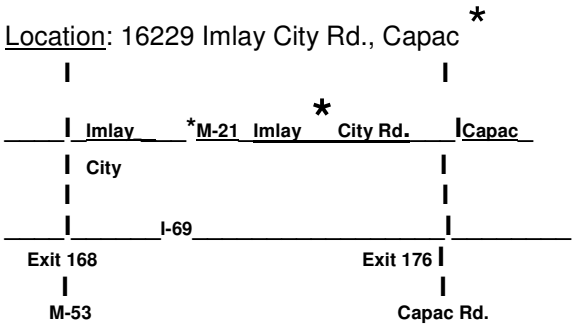
UP-COMING EVENTS

Sunday, August 2 -- SEMBA Field Trip
(For fieldtrip details and directions see notice below**.)***
August 3-7, EAS 2009, Ellicottville, NY.
(For information www.EasternApiculture.org)
August 27 - Labor Day – Michigan State Fair
(Contact Bill Sirr, 248-544-8619 or Mary Hobart, 248-545-6563 if you wish to work at the SEMBA booth.)
Tues., Sept. 8 -- SEMBA Planning Meeting
Sun., Sept. 13 – SEMBA Meeting
Sat., Sept., 19 -- Tollgate Fall Fair

***SEMBA BEEKEEPING FIELD TRIP**

When: Sunday afternoon, August 2, 2009
Time: 2:00 P.M.
Where: The David Kriesch Apiary and Honey House.

Location: 16229 Imlay City Rd., Capac



Program:
David Kriesch will conduct a tour of his apiary operation and MDA approved honey house.

Winn Harless will demonstrate the Cloake Board method of raising queens.

2009 SWARM-REMOVALREPORT

Currently, twenty-five SEMBA members are listed on the 'Swarm Removal' page of our Web site "sembabees.org". Those individuals were surveyed and of twenty-one responses, the total number of swarms collected was 123. Over 80% of these swarm calls were due to Internet communication.

Winn Harless led with a total of 20 swarm retrievals, two of which lacked a queen and one with two queens. One swarm absconded after capture. Winn also reported that a swarm issuing from SEMBA member Mack Clausel's hive was 8-10 pounds in weight. It was the largest swarm he had ever seen.

In addition to all the swarms Winn has retrieved, he has produced over 70 nucs, assembled over 750 frames, maintained bees in eight out yards and conducted several Cloake Board Queen rearing sessions for SEMBA members. *(Note*: *The editors surmise that if General Motors had not closed the GM Hydromatic Plant, this GM retiree might be tempted to return to his old job to get some rest.)*

Don Schram, who is doing "Bees in a Wall" removal as well as retrieving swarms, wants to pass along a bit of advice: "Where is the job?" should be one of the first questions you ask when responding to a call. He said that after being on the phone for 20 minutes with a caller, and deciding that he would go to do the cut-out for the nice lady, he asked her how to get to her home. She replied, "Do you know the Torch Lake area?"--- It is only 230 miles, Don!

Mazin Malallah reported that on one day as he was walking back to the end of the field where he keeps his bees, he noticed a nice-sized swarm on a branch about 10 feet high. He returned home for equipment, drove his truck under the swarm, placed a six-foot ladder on the truck bed, cut the branch, placed it right on the ground in a deep box with some frames, covered the box and went home. The next day he returned at dusk to relocate the hive. He said, "I opened the cover and did not find even one bee!" Mazin requests reasons why they left the box.

If you would like your name included on the swarm removal page, please contact Roger Sutherland, 734-668-8568 or e-mail rsuther@sembabees.org

SWARMING, SOME OF THE BASIC BIOLOGY

Because the colony is considered a single organism, the only way to increase the number of organisms is for hives to swarm. Beekeepers can make this increase by making divisions. Exactly what initiates swarming is not totally understood. Some possible factors that initiate this behavior are: lack of room for expansion, brood nest congestion, abundant nectar and pollen stores, insufficient queen pheromone for distribution to workers, and increasing day length.

Swarming begins when the mated queen lays worker eggs in queen cups usually near the bottom of a frame. Queen cups, by themselves, are not a sign of swarm preparation and the queen herself is not forced by the workers to deposit eggs in them. As the new queens are developing in the cups, the queen begins to lose about one-third of her weight because the workers have reduced queen feeding. Workers may begin to treat the queen roughly including the behavior of vibrating her. Worker bees, meanwhile, increase their honey consumption up to ten days before the swarm emerges.

Prior to the swarm emergence, some of the older workers begin to scout for a new home just before the new virgin queens emerge. Swarms occur most commonly between 10:00 a.m. and 2:00 p.m. on days suitable for flight. Within a period of ten to fifteen minutes approximately one-half to two-thirds of a robust colony will leave the parent colony. The queen may be pushed to the entrance by the workers. Bees rush out of the hive, fly in a circular flight motion and land on some object usually a short distance from the parent hive. The bees will be of all ages, but the majority are younger bees. About 50 drones will join the swarm and sometimes bees from other hives will join as well. Some colonies will swarm more than once; the first or prime swarm is usually the largest. Secondary swarms, often much smaller, could have a virgin queen or multiple virgin queens.

If the swarm is captured or if a suitable home is not found, they may start nest building on the swarm location. Bees in a swarm generally are not aggressive because they do not have a home to defend and they are gorged with honey. However, once they begin nest building they may become defensive.

Tom Seely, Ph.D. of Cornell University, has recently published research on swarm-seeking nest location behavior. He says, “Out of a swarm of 10,000 bees, some 300 to 500 females buzz off to scout possible nest sites. Every scout we’ve seen is an elderly bee with a lot of experience going around the countryside. A good cavity is hard to find so only a few of the scouts come across something worthwhile to report to their sisters. The first scouts dance for a wide variety of sites which encodes the direction and distance and the more enthusiastic a scout is, the more times she repeats her waggle report. Her dance may inspire other scouts to take off and check it out for themselves. Scouts go back to a site multiple times. Good sites gain more dances and poor sites dance with fewer repetitions and eventually they stop. By the time a swarm takes off they are almost unanimous in dancing about a single site”. Seeley and his colleagues have established that the decision does not occur at the swarm at all but at the nest site. Seeley says, “When some 15 or so scouts meet outside the nest site – with probably another 30 to 50 inside – bingo, that’s the new home.”

PLANT CELLS HELP BEES GET A GRIP

Flowers pollinated by insects have evolved special cells on their petals to help bees stay put while they are feeding, say UK researchers. Plus, bees can learn to prefer flowers that are easier to hold on to. The findings, published online in the journal *Current Biology*, settles the debate over why these conical cells exist. Lead author Dr. Beverly Glover of the Department of Plant Sciences at the University of Cambridge, says scientists had long recognized that most flowers have surface cells on their petals that are shaped like little cones or pyramids. Yet no one knew what they were for, she says.

"There were all these complicated ideas about how they might enhance light capture and make the petal look a brighter color, or enhance the temperature of the flower and therefore increase nectar secretion, or maybe affect the way scents are released," she says."It turns out that they're just providing a bit of grip to make life easier for pollinators."

For the study, Glover and her colleagues tested the behavior of bumblebees as they attempted to feed off fake epoxy snapdragon petals that had bitter and sweet "nectars". The only difference between the petals was the shape of the surface cells.

In laboratory tests, the team found the bees, which had never seen a flower before, "learned" to recognize the shape of petal cells via touch and quickly began to prefer the conical-shaped

models."To start with, they visit both flower types equally, but within 20 to 30 landings on flowers they learn to target the conical-celled ones," says Glover. She says the special cells allow a "Velcro-like" grip between the pollinator's middle feet and the flower. On flowers without the cells the bees cannot get a foothold and they are "continually scrabbling while the bee drinks, and the wings continue beating"."That all makes it hard to keep the proboscis in the nectar and also wastes energy," says Glover.

Glover says about 80% of flowers studied have these conical cells and she expects the findings will apply to other bee and flower species.

"I strongly suspect that all pollinators that actually land on the flower (other bees, butterflies, flies, and beetles) will prefer conical cells, while hovering pollinators (hummingbirds, moths) won't care."

Bee researcher, Dr. Katja Hogendoorn, of the University of Adelaide, says the findings are "beautiful" and open up a whole new dimension of morphological research. In particular, Hogendoorn says plants might adapt these conical cells so as to attract particular bee species. "Bees range between 1.5 millimeters and 4 centimeters in length and can have wide and slender 'feet', placed wide apart or close together," she says. "That is the equivalent of the variation between a rabbit and an elephant."

Hogendoorn says certain plants are highly adapted to certain bee species to encourage them to move between flowers of the same species for cross-pollination."Does the intricate structure of conical cells support this specialization? Is its structure and placement variable between plants depending on the bee species, size and morphology?" she asks.

Glover agrees the findings do raise questions such as how these cells evolved and whether they target certain pollinators. She believes the results might also have applications in agriculture."You can imagine that it might be possible to optimize petal cell shape to encourage pollinators to visit crop plants that rely on animal pollination, such as fruit trees," she says."[But] this would need an analysis of what the petals currently look like and what pollinates them."
~ Source: Dani Cooper, *ABC Science*, 5/15/09

USA- BEEKEEPING IS COMING THE LATEST TREND IN WASHINGTON
A semisecret society of rooftop beekeepers has long existed in the city. Now, the veil is being lifted slightly, as the hobby becomes more popular. The White House recently added a hive to the South Lawn, and the Fairmont Hotel in the West End started two hives on its rooftop. The hotel's chefs are looking forward to local honey to drizzle on cheese and add to their white chocolate mousse.

Forty-five-year-old Toni Burnham has become one of the most prominent beekeepers in Washington. She has two hives on top of her townhouse and is pushing for legislation that would protect and encourage beekeeping in the city.

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URBAN BEEKEEPING IS ILLEGAL IN NEW YORK CITY, BUT GROWING IN POPULARITY NATIONWIDE
It has been illegal to keep bees as pets in New York City since 1999, when they were classified by the Department of Health as venomous insects. But recently, with the announcement in March that the President Obama will keep a beehive at the White House, beekeeping seems to have found a second wind.

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MUTATED VARROA SPECIES IS NOW KILLING EUROPEAN HONEY BEES
A dangerous mutant gene in a previously harmless honeybee mite in Papua, New Guinea has Australian beekeepers fearing for their future. The Asian honeybee mite has undergone a genetic mutation which allows it to infest European honeybees.

Commonwealth Scientific and Industrial Research Organization bee pathologist Denis Anderson tells the Australian Broadcasting Corporation the mite is one of a strain of Varroa mites which had never before been able to breed on the European honeybee, and thus had been no threat to horticulture.

Now the mutant mites are running rampant through honeybee hives in Papua, New Guinea, wiping out up to half the country's honey industry. The mutation is believed to have originated from a single female mite. Anderson says based on experiences in the past, the mites will be also carrying exotic viral diseases.

~Source: *Catch the Buzz*, 6/11/09.

SEMBA LEADERS

President…….Roger Sutherland (734-668-8568)
1st Vice President……Winn Harless (734-453-2914)
2nd Vice President…….Dennis Holly (248-542-1316)
Secretary……Mary Hobart (248-545-6563)
Treasurer……Mary Sutherland (734-668-8568)
Past President……Keith Lazar (248-361-1710)
Web Master……Tom Lisk (810-229-6365)
Bee Class Leader…….Ed Nowak (734-422-0508)

SEMBA Hostesses ……..…Donna & Howard Laws (248-698-6908)
Teresa and Walter McCurdy (248-360-1390)
Oakland Bee Club Leader…Larry and Sue Yates (248-649-5078)
Historian……..……Ron Forfinski (810-220-1084)
Outreach Presentation Committee….John Kates (313-273-8214)
SEMBA Representative to MBA……Rich Wieske (248-705-5181)
SEMBA Director……....Fritz Sanders (734-425-0449)
SEMBA Director……....Don Schram (248-310-8205)

VARROA TRAP SEEMS TO WORK

A new bait could see Varroa mites literally walking into a trap. Agricultural Research Service (ARS) scientists in Gainesville, FL., are testing a bait-and-kill approach using sticky boards and natural chemical attractants called semiochemicals. For patenting reasons, Teal won't reveal what the specific compounds are, other than to say they're naturally produced by honey bees and highly attractive to Varroa mites.

Varroa mites rely on these semiochemicals to locate - and then feed on - the bloodlike hemolymph of both adult honey bees and their brood. Severe infestations can decimate an affected hive within several months and rob the beekeeper of profits from honey or pollinating services. But in this case, the mites encounter a more heady bouquet of honey bee odors that lure the parasites away from their intended hosts and onto the sticky boards, where they starve. ARS Chemistry Research Unit research leader Peter Teal reports preliminary tests of the attractant are promising. We are able to induce 35% to 50% of mites to drop off of bees when we present them with either of the two attractants, and more than 60% of free mites are attracted to these chemicals in biological tests," Teal says. The research team hopes ARS' patenting of the Varroa mite attractants will encourage an industrial partner to develop the technology further.
The original report can be found at: http://www.ars.usda.gov/is/AR/archive/jul09/mites0709.htm

~Contributed by Alan Harman

SEMBA Bargain Corner

For Sale:
New 5 gallon buckets. Call Keith Lazar 248 361 1710.
5-Frame Nucs: Call Winn Harless, 734-453-2914.

Honey bee locations available
5 acres located NW of Imlay City near Attica, MI. Call Dave Swanson, 313-730-9249.
Several locations (10 to 40 acres each), Grass Lake and Ann Arbor areas. Varied terrains. Call Susan, 734-665-0791.

Services:
Honey bee removal service. Call Don Schram, 248-310-8205.

Lost and Found:
Silverware with black handles left at the Tollgate Farms picnic on July 12, 2009. Call 734-668-8568 or e-mail rsuther@hotmail.com

Southeastern Michigan
Beekeepers' Association
Organized April 1, 1934

Oakland Beekeepers' Club

Schoolcraft Beekeepers' Club

SEMBA Membership
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