

THE HIVE TOOL

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**PUBLISHED BY
THE CENTRAL MARYLAND
BEEKEEPERS ASSOCIATION
FOUNDED 1973
President Frame**

It's one of those occasional mid-winter days when the temperature climbs above 50 degrees and the bees are flying. I walked up to the apiary and found activity at every entrance. That made me happy. I lifted the covers on a few hives which I thought were weak in the fall, and so far they seem to be doing well (gonna keep an eye on 'em). I checked the weight of each hive by lifting it slightly from the bottom board in the back. They all are still heavy with stores of honey. And I told them something they already know - that the year has turned. The sun is climbing slowly to it's summer zenith and the long winter has begun it's journey home. Though still facing two months plus, winter seems less foreboding after the holidays have passed and every beekeeper I know dreams of spring days and daffodils, the aroma of an open hive, and a healthy queen going about her business. Sweet dreams, indeed.

So much for dreaming revery, there are those winter chores we must not neglect. Continue to check on your colonies when the weather permits but don't disturb the cluster or move frames about unnecessarily. This is a time of year when manipulations must be minimal and performed only to manage a desperate situation. Clean and repair your equipment, read, order bees, make plans, try something new this year.

One piece of business no beekeeper in Maryland should put-off or neglect is to register your bees. Every registered beekeeper received a mailing from the Maryland Department of Agriculture in December (if you did not, contact Jerry Fischer). Beekeepers are notorious procrastinators for some reason when it comes to registration. Every year at the MSBA Winter Meeting, Jerry concludes his yearly apiary report by exhorting beekeepers to send in their free registration forms (in many states you pay for this service!). Wouldn't it be great if this year Jerry would conclude by saying, "With the exception of CMBA . . ." All right; go find the form, fill it out, mail it in - NOW!

Now that we're all caught up, let's look ahead. Our January meeting is Tuesday, January 8th at ORNC starting at 7:30pm. Come early and talk shop. Our program will be "What's New for the New Year." Linda Allman will review the 500 dollars worth of new books now available from the association library. We'll also look at some new hive products on the market - some

of those ancillary pieces of equipment you've wondered about - how do they work? Are they worth it?

We'll talk about some new things you might try with your bees this year - different management techniques, comb honey, different feeding methods, etc. And, since its been a while since we've met, there will be time for your new questions (we might even agree on an answer!).

Briefly, some CMBA business: In November the Executive Board rejected my proposal to raise our dues to help support the MD Apiary Enhancement Fund. It was agreed that our current financial surplus did not warrant an increase in dues.

At the same time, the Board endorsed the establishment of a committee to investigate ways to use our wealth to advance the goals and objectives of our non-profit organization. If you would be interested in serving on that committee, please let me know (some have already). Meanwhile, the Board is actively working on the revisions to our by-laws which will be presented to the membership at an upcoming meeting and which will be published in this newsletter before a final vote. Your comments will be requested at that time.

Finally, I am proposing we move our annual Honeybee Night from March to February this year to accommodate the Short Course dates (the first class is February 28th). Honeybee Night is the annual meeting in which we invite the public to come and learn about honeybees, meet some beekeepers, and to get some information about how to start keeping bees (and hopefully to sign-up for the Short Course). If you have friends or neighbors, co-workers or acquaintances who you think might be curious about beekeeping or might want to get started keeping bees, please invite them to this meeting, Tuesday, February 5th.

Here's hoping each and every one of you had a meaningful and relaxing holiday. And best wishes for the New Year from your friends at CMBA.

Sad News

John Romanik, a long time member of the Central Maryland Beekeeper's Association passed away recently. A Memorial Service will be held on Saturday, January 5th at 11:00 A.M. at St. Michael's Catholic Church in Mt. Airy, Maryland.

Sundown Splits

By Dick Marron

Reprinted from Bee Culture October 2007

Spring was here. The bees would have no hesitation, in the morning, in discovering their new home. The orange flowers would seduce them.

The book says take two frames of brood, one of pollen and one of honey. Dump in some extra bees. Give them a queen in a candied cage and set the nuc box aside and don't disturb for a week. Your directions may vary.

That's not exactly how it's done by the man I'll call "keeper." For one thing, hives may not be split in two. Two hives may end up yielding only three splits if the bees are poorly. In bad years two may morph into one. Decisions are made with a glance. Several hives are open at the same time. Between the smoke and the clatter the bees are so confused they forget to fight. Their home has been moved and they start clusters in many places. The air is thick with them and the hum is electric.

The scene is a beeyard in Florida in late Feb. The bees have been idling along on keeper provided food. It's time to make up for Winter's losses and get ready for a new year. It's a scene repeated amongst keepers across the state. (And most of the south) Some keepers live in the north and only the bee's travel south in Winter. The two get together for this Spring ritual. The orange blossoms are opening.

"I don't have what I need!" "Need a frame of honey here!" "That pallets all set. Let's set up over there." "Don't get too far ahead of me." "Where's the damn smoker?" This is the music to this dance-macabre. The hooded figures forged toward the far end of the yard all day. As if the day would ever end. Finally though, it did. We stopped this work sometime in the afternoon. We adjourned for supper. We dined as the bees organized themselves. Then we went back for a second shift.

The sun was going down when we started to load. We sat for an extra minute to let the bees finish coming home for the evening before disrupting them again. 128 new splits, made today, were about to move to oranges. It was a soft evening. While the sun may have seemed to set slowly for some - for us it went down quickly. The keepers' ugly loading machine snorted among the pallets looking for the chosen among the buzzing silhouettes. Finally the net was cast over all and the load strapped down. Bee suits were shaken off in the headlights and truck doors slammed. The bees are supposed to fly toward the lights. Some of them actually did.

Now the smallest unit of bees that would be referred to for the rest of the year is the pallet. These hold four colonies. Soon 32 pallets of nature's pollinators were bouncing over county roads, through the twilight, on the way to the next phase of their existence. Today they had been rudely split in twain. Meager stores of honey, pollen and brood had been divided. Half were queenless. None were happy!

It was full dark when we reached the orange grove. The lights caught a few blossoms that were gently waving in anticipation. The rattle of the diesel finally quit and we sat for a moment in the not-quite silence, the work waiting. The bees were restless under their net after being handled in such a humiliating fashion.

The Bobcat clattered off the trailer, again bringing its will of steel to the nature of the evening. The harmony of man and machine could be appreciated as the clumsy looking beast gently unperched the bee-skyscrapers from the truck. As gently as could be imagined, 128 boxes of bees were set down; closer, perhaps, than nature would have imagined ... but with room to fly in and out. Bees are good at that.

Spring was here. The bees would have no hesitation, in the morning, in discovering their new home. The orange flowers would seduce them. Caught between them, the beekeeper could only yearn to be as much a part of things as the bees and the blossoms were. Why else would he be working his 13th hour that day?

The Bobcat grumbled itself back up on its trailer. The truck bounced across the field headed for home. One could imagine the bees sighing with relief. The beekeeper had removed himself - the unnatural, yearning creature that he was - from the confused and disgruntled bees. He'd return shortly with queen-cells and try to make amends while the bees were working.

Thirty-six hours later the keeper appeared with an incubator full of queen cells, a smoker, a hive tool and a helper. I had ridden in the truck with the future matriarchs of 128 colonies balanced in a little box on my lap. It gave me a strange feeling. I can't put my finger on it. It was smug mixed with glad-to-be-there. We had been destroying up to now. Finally we were building.

The keeper had things to accomplish. I saw poetry in the day. Then we simply started working. "Put the lid over there, you won't have to bend to pick it up!" That's not smoke! Get it right in there!" "Handle the cell gently. It just sets into the brood

frame, then close up the frames." It was the gentlest thing we did to these little empires.

I thought the bees were very understanding, considering the week they were having. It was easy to hear the roar of those without a queen; it was easy to feel the anger when we opened those hives. Like a democratic bulldozer the keeper gave them each a queen cell. The bees would sort it out. If an existing queen could find her replacement and kill her then she could carry the colony forward another year. Keeper thinks most of the time she is replaced by the new queen. No one would be around to tally.

No one tallies keeper hours either. I didn't know so much beekeeping was done in the dark. The future's in the dark as well. The price of pollinating hasn't risen to keep up with costs. The price of honey is going down again. Two new diseases (CCD, Nosema ceranae) are looking for a home. So are AHBs .. And, of course, nature isn't sentimental. She can withhold her rewards on a whim. Or, like any woman, she can lavish sweets - seducing keeper into another year; another year of sunrises and sunsets; of starting over by finding himself standing amid his February splits. For some keepers the victory is like that of the cat on a hot tin roof; it's "just staying on."

QUEEN PHEROMONE AFFECTS LEARNING

Reprinted from Bee Culture October 2007

Honey bee queens control their offspring with pheromones that alter the chemistry of the honey bee brain, New Zealand researchers have discovered.

Alison Mercer and her research team at the University of Otago showed that a major component of queen pheromone, homovanillyl alcohol alters the function of dopamine pathways in the brain.

This study provides a direct link between changes in brain biochemistry and complex behavior.

In a study published in Proceedings of the National Academy of Sciences the researchers report that in young workers exposed to their mother's pheromone, levels of dopamine in the bee brain, as well as the levels of dopamine receptor gene expression, are reduced.

As a result, the brain's responses to this important modulator are changed dramatically. The effects on brain function are profound and researchers decided to extend their study to explore

the effects of queen pheromone on learning in bees.

In *Science* magazine the researchers say aversive olfactory learning in young worker bees is completely blocked by queen pheromone.

Young bees exposed to their mother's pheromone cannot learn to associate odors with a nasty or negative outcome. The effect is not permanent, nor is it a general learning deficit. The pheromone's effects on aversive learning are age dependent, and appetitive - food related - learning in young bees is not affected.

The researchers say there is a reason for the queen to block aversive learning in young workers.

Young workers perform many tasks. Their most important role is to feed and groom the queen, and distribute her pheromones throughout the colony. By blocking aversive learning in young workers, the queen may be making her own life and that of the colony more secure.

Exposure to their mother's pheromone prevents young workers from developing an aversion to odors in the hive, including odors produced by the queen. With increasing age, however, worker bees start to leave the colony in search of food.

For foragers, aversive learning is an important survival tool and researchers have found that by the time bees begin foraging, their ability to learn and recall information about noxious stimuli is no longer affected by the pheromone bouquet.

"We've linked events at the cellular and molecular level with changes in behavior," Mercer says. "Finding out how queens use chemicals to manipulate the behavior of offspring is creating a window into the brain of this remarkable animal." - AH

Blogs & Web Pages

By Gerry Gomez

Reprinted from Bee Culture October 2007
I've been impressed with the range of beekeeping blogs out there. Some are helpful how-to blogs where new and experienced beekeepers freely share their tips, discoveries, and yes, their mistakes. Others are news-oriented, providing good sources of bee-related information drawn from various parts of the web. Still others are eccentric in the best sense of the word, covering whatever happens to interest the author at any given time from bee-related art to spiders in the hive to powerful essays on beekeeping and environmental protection. Below are some of the blogs I find myself returning to again and again.

Blogs

Linda's Bees

<http://beekeeperlinda.blogspot.com/>

Linda, an Atlanta-based beekeeper now in her second year of beekeeping, runs a nicely written, content-rich site on the ups and downs of her beekeeping experiences. Here you'll find how-to videos and slideshows on constructing a small hive beetle trap, assembling a low-tech solar wax melter, and other topics. The topics discussed are eclectic - recent posts discuss pollenology, robbing, the finer points of pack-aging cut comb honey, and close encounters with a bald-faced hornet. Links to many lovely beekeeping blogs from around the world, including Greece and Turkey, are included.

Hive Mind Presents Backyard Beekeeping

<http://www.hive-mind.com/bee/blog/>

This entertaining blog covers plenty of ground, from honey-tinged ginger ale recipes to flesh-eating bacteria, plastic foundation to swarm-catching. Most unique are the posts on the beekeepers' artistic "collaborations" with the bees. Various objects (such as glow-in-the-dark skulls and wedding cake decorations) are coated in beeswax and placed in the hives, inviting the bees to create honeycombed sculptures from the objects. The bees usually comply, and the results make this blog a most unusual stop along the Information Superhighway.

Beepocalypse

<http://www.beepocalypse.com/>

With tongue firmly planted in cheek, this newsy site pegs itself as "Your source for the latest info on the next end of the world." Featuring brief commentary on everything from conspiracy theories surrounding CCD to food politics, the site includes a legislation tracker pertaining to honey bees and pollinators, links to many interesting news articles, and info on the latest scientific research on honey bees, biodiversity, and related topics.

City Bees

<http://citybees.blogspot.com/>

This blogger writes, "I am a secret city beekeeper, just starting out with two colonies of honey bees on an 'urban'; roof deck. I am unafraid of my bees, but am a bit worried about the neighbors." The site provides an urban perspective on the art of beekeeping and is rich with observations about pollination, colony management, and the importance of using our beekeeping experience as a springboard for educating the public and fostering goodwill toward bees.

The Beekeeper

<http://www.thedailygreen.com/2007/06/21/the-daily-green-saves-the-bees/2813/>

The Daily Green: The Consumer's Guide to the Green Revolution is a Hearst online publication launched earlier this year. It's host to many resources, including an environmental news section, eco tips, and "green cuisine." It's also home to *Bee Culture* editor Kim Flottum's new blog on beekeeping and CCD. To find the blog, use the link above and scroll down to "The Beekeeper." There, you'll find Flottum's straight-shooting essays on various topics, from "Post Office Snubs Honey Bees With Pollinator Stamp" to his recent report on the Eastern Apicultural Society Conference, "Scientific Silence, Amid Incessant Chatter About Bees."

I'd also like to give "honorable mention" to three new sites that don't yet have enough content yet to warrant a full review, but are promising enough to check out for yourself.

The Eye of the Bee Holder

<http://eyeofthebeeholder.blogspot.com/>

Top-Bar Bees (Beekeeping in Top-Bar Hives)

<http://topbarbees.wordpress.com/>

Canaries in a Coalmine (Notes and jottings from a new beekeeper committed to sustainable living and an ecologically just environment)

<http://canariesinacoalmine.blogspot.com/>

Web Pages

We often hear how the art of beekeeping is passed along through mentorship. As a new beekeeper, I know this to be true. Books are great, but guidance from experienced beekeepers is invaluable.

Mentorship is especially important for beekeepers choosing "the road less traveled": organic, sustainable beekeeping; the use of top bar hives (an increasingly popular alternative to the Langstroth hive); and other less "conventional" methods that may offer new hope during these trying times in the beekeeping world.

For me, this all-important mentorship has come through the good graces of the Internet, where I have found dozens of helpful resources, along with a generous, well-informed online community of beekeepers forging alternatives in a world badly in need of them. Here are some of the resources I have found most useful and engaging. Most should be of interest to new and experienced beekeepers alike.

Organic Beekeepers

<http://pets.groups.yahoo.com/group/Organicbeekeepers/>

With the conviction that "healthy, happy bees don't need any additives," this vigorous online discussion group is home to many pioneers in the organic beekeeping community and much spirited discussion. The group's mission is to "establish a community where beekeepers can learn Organic Beekeeping field management without the use of drugs, chemicals, essential oils, herbs, food grade mineral oil (FGMO), acids, fungicides, bacterial/viral inhibitors, micro-organism stimuli, and artificial feeds." The group features discussions on management techniques, honeybee behavior and biology, and guidance for "newbees" starting out on an organic track and experienced beekeepers looking to leave "Additive Avenue" behind.

Bush Bees

<http://www.bushfarms.com/bee.htm>

Michael Bush's website has a wealth of information you won't find elsewhere. A proponent of raising honey bees on natural-sized cells (as opposed to the cell size found on most commercial foundation), Bush reports having virtually eliminated problems with *Varma* and Tracheal mites in his hives. His site explains natural-sized cell, top bar hive beekeeping methods, and unlimited broodnest management, among other topics. The site also includes links, a glossary of beekeeping acronyms, a discussion of beekeeping myths, transcriptions of classic books on beekeeping, and a useful essay for newcomers to the honeybee lifecycle entitled, "Bee Math."

Feral Bee Project: Preserving the Feral Honeybee

<http://pets.groups.yahoo.com/group/FeralBeeProject/>

This discussion group focuses on beekeeping in feral and untreated survivor honey bee colonies. With an emphasis on sustainable beekeeping practices, this group will appeal to beekeepers who already forego or wish to transition away from treatments. The Feral Bee Project, in a nutshell, is about encouraging and breeding only the fittest honey bees - those that will thrive without treatments and be productive for the beekeeper; those that involve more "natural" breeding methods; and those that promote the highest genetic variability and productivity.

The Hive and the Honeybee: Selections from the E.F. Phillips Beekeeping Collection at Mann Library

<http://bees.library.cornell.edu/>

"Those who cannot learn from history are doomed to repeat it," said poet-philosopher George Santayana. Perhaps in our quest for a brighter beekeeping future, we can take a bit of direction from the past. The historically minded will revel in the treasure trove at Cornell's Albert R. Mann Library, touted as one of the world's largest apiculture collections. The site features digitized, searchable versions of 30 rare books from the collection of E.F. Phillips, a professor of apiculture at Cornell University, who set out in the mid-1920s to amass a comprehensive library on beekeeping. (See the "About page" for an entertaining story about how Phillips went about this ambitious project.)

Historic Honeybees Article & Archives

<http://pets.groups.yahoo.com/group/HistoricalHoneybeeArticles/>

For a fascinating experience of virtual time-travel, check out this database of his ton cal bee articles, folklore, images, and writings gleaned from old newspapers, magazines, and other sources. The archive runs the gamut from "Bee Articles 100 Million Years B.C.-1599" all the way up to "Bee Articles 1950 to Present Day."

The Appropriate Beehive by Marty Hardison

<http://home.comcast.net/~topbarbeehives/wsb/html/view.cgi-home.html-.html>

The Langstroth hive is the industry standard, but there are other options out there and options are good. Enter the top bar hive (TBH) and this introduction to the topic by TBH pioneer Marty Hardison. The site includes a history of the TBH, articles on TBH seasonal management, and a photo gallery with construction plans for building your own hive.

The Sustainable Beekeeping Project

<http://www.biobees.com/>

Phil Chandler's new site on "chemical-free, low-maintenance, top bar beekeeping for everyone" includes a free, downloadable e-book on how to build your own top bar hive and an interactive forum on with threads on biodynamic beekeeping and TBH management, among other topics. The site promotes Chandler's primer on small scale top bar hive beekeeping, *The Barefoot Beekeeper*, which includes one of the most eloquent arguments for sustainable beekeeping I've seen .•

Gerry Gomez keeps bees in the Catskill Mountains and is the author of Global Swarming Honeybees
<http://globalswarminghoneybees.blogspot.com>

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DATES TO REMEMBER

General Meeting – January 8, 2008 – at Oregon Ridge Nature Center. 7:30PM
Subject: What's New For 2008.

Board Meeting – January 17, 2008 – 7 PM at Oregon Ridge Nature Center.

General Meeting – February 5, 2008 – at Oregon Ridge Nature Center. 7:30PM

Board Meeting – February 11, 2008 – 7 PM at Oregon Ridge Nature Center.

MSBA Meeting Winter Meeting – February 16, 2008 at Howard County Fairgrounds – 8:30 AM

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