

SABA

SOUTHCENTRAL ALASKA BEEKEEPERS ASSOCIATION

~~~ June 2010 ~~~



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## CALENDAR

Upcoming events:

SABA Meeting  
Monday, June 28th

On the inside:

May Minutes  
Moving Hives  
Swarm Prevention  
Colony Collapse



## SABA Monthly Meeting



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June 28th - 6:30 pm

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4<sup>th</sup> Monday of the month  
Eagle River - VFW Hall

Take the South Eagle River Exit, first right (at the light)  
VFW is the 6<sup>th</sup> building on the right. Log building, meeting is in the downstairs.

Meeting – Monday, 5/24/10

By: Donna Victors

***Officers Present:***

Steve Victors, President

Colette Marshall, Vice President

Ty Tobias, Treasurer

Donna Victors, Secretary

Steve Victors called the meeting to order at 6:33.

***Treasurer Report:*** Ty reported that we have \$3,740.77 in the treasury.

***Correspondence:*** Ted Berry at mile 79 past Kashwitna Lake, on Birch Grove Farm, before Sheep Creek, said he has a four hive cage available. He stated that the cage is bear proof. His number is 495-1018. If anyone wants to put hives there this year it is available.

***New Business:*** Mia Kirk from the Dept. of Ag gave a short talk regarding the annual requirement to register bees. She said it was beneficial to all to be able to correct diseases such as foul brood. The USDA is funding a national survey for testing for disease and the mite loads in the state. The first year, there were three states participating, the second year had 13. Right now there are no import laws on bees. Mia said that they would gather information on nosema levels along with tracheal levels; it would take four months to get the results back. Tom Elliot asked if the state of Alaska had an inspector now. That question was not answered. Steve said we would have a link on our website for registering and for the survey.

Right now for our website, we are paying a monthly fee of \$13.99 to Yahoo as the group initially wasn't sure they wanted a website or its viability. We have had many hits on the site. Ray Reynolds moved to pay for the year instead of by the month. Tom Elliot changed the motion to shop around for a more permanent site. Passed unanimously.

Steve asked about the whereabouts of the observation hives. There are three unaccounted for: the nuc one, the grey two-frame, and a plain wooden two frame model.

The Swarm List for 2010 was passed around for those interested in collecting swarms. This is a good way to put more bees to work for you! (Drawing out comb, for instance.) Steve discussed how a shop vac is great for collecting yellowjackets as many of our "swarm" calls were going to be actually wasps instead of bees. He stated that it is important to help our communities. He explained that you could put soapy water in the shop vac and leave the nozzle of the vac by the hive entrance overnight and it would suck up any bee returning from foraging. Wasp traps were discussed with soapy water and a rock barely sticking out with a piece of meat on it. A five-gallon bucket was mentioned with a bit of salmon on a piece of Styrofoam with water. Steve explained that the soapy water breaks the surface tension so they drown quicker; it's better than poison. The wasps take a bite of meat and they land in the water as they try to take off. It was suggested that we take for free any honey bees but if they are yellow jackets, we could charge for their removal.

The Kenai Borough this year issued beekeeper a citation for "unrestrained animals." Neighbor relations are important! Reminder to be kind and gentle to our neighbors...remember to provide a water source for our bees as our bees may find the neighbor's hot tub or dog dish.

***Old Business:*** Steve asked about the HoneyStix and the presentations that happened. Nick Marcus stated that the stix were a big hit and that the presentations were great. Blair Wondzell said he presented to first graders; he wore his suit and took in a hive.

People brought bee boxes for Joe Dunham who was not present. Ty said he will take them to Joe's house.

**Discussions:** Swarm season starting next month (June.) Check your hives weekly! They should be drawing out foundation. DO NOT put excluder on top of the brood chamber below the honey super as they'll use it as a roof if there are only empty frames of foundation above. They won't go through it to draw out foundation. Give them ROOM! Reversal of boxes—chamber full of brood down below with new space above. Check for queen cells.

When egg laying stops, they're getting ready to swarm. Move bees around to check the middle of the frame. If you find a queen cell, make sure your queen is still alive.

If there's a successful queen cell, they'll continue collecting honey.

Check your hive before you go on vacation. End of June/1<sup>st</sup> July long rainy season? They'll swarm as soon as it's clear! If they're hanging in front of the hive, that's a warning they're getting ready to swarm.

Checking weekly is important—ten days is the maximum time between hive checks. June to August = weekly checks. In May, they're building—no worries other than checking the quality of the queen.

If queen cups are made, first they will just appear to be bigger cells, then they will become fuller cups. First drones are produced. Then after that, queen cells, then there will be a swarm.

Steve tips up the box on its side for checking for cells. If there are some, he then goes through each frame for cells in the middle as there are always some there. The bees rarely build one or two. If you see one on the bottom, there's more in the center of the frames. Disrupt the queen cell with your hive tool. They'll still make more, but it'll take them another week. Give them more room!

**TIP:** Don't check your hives if your neighbor is having a picnic nearby! Be cognizant of what your neighbors are doing so you don't disrupt their activities with disturbed bees.

Tom Elliot said that in mid-June he pulls the queen and puts her in a nuc so they can raise a new queen. He doesn't have a swarm that way. After honey production, he recombines.

7 out of 10 frames full? Put another brood chamber on. Move the empty frames next to the brood nest. The brood nest is five frames wide—put the empty frame next to the brood. Put the sixth frame on outside. Ends should be filled with honey.

Discussion on drawing out frames and adding supers. Blair Wondzell said that at his last hive check, there were larvae everywhere. The brood was scattered due to hatching out or the cells are filled with sugar water so the queen has no place to lay. It also could be that she is not a good queen.

Two queen system: uses four brood boxes. The brood nest of 30 frames out of 40. The upper queen lays more than the bottom queen. Can move brood frames down to bottom queen—bees have tendency to move up. There's not as many nurse bees in the bottom. Move nurse bees and all as long as the queen is not there and help out the lower queen.

When will the nectar flow start? There's pollen like crazy. The nectar has started as the birches and the dandelions are blooming.

Caging? Mid-July. If you're wintering, don't cage. The brood that's hatching out are nurse bees, not foragers. Could cage earlier—1<sup>st</sup> of July as the honey brought in won't go to feeding the brood. If you want to depopulate the hive, first two weeks of July.

Caged queen? The bees may raise a new queen. They'll still swarm. 5-6 days after caging, go thru thoroughly to check for queen cells. Up to 6 days after caging, they could change an egg into a queen.

Question about pulling sugar water. Check for the honey arch (stores.) Plenty? No worries. Carniolans are more sensitive to nectar flow. Italians, on the other hand, will keep going—she'll keep laying and they'll even starve themselves. If you are working with bare foundation, the bees will need more fuel. Most stop feeding when the bees stop taking it. The bees see the sugar water as nectar—it's thicker than the natural plant nectar. Too much? You can extract it and use it in jams and jellies or feed it back to the bees in the fall.

The trees blooming right now are the willows and birches. The bees work the trees for pollen but also for nectar. The white pollen is Labrador tea, may day, mountain ash, and cherry trees. The dark red is tulips. Yellow is birch; orange is dandelion.

Judging location of hive? Noontime before seeing bees? Move the hive. You should see lots of activity. Early morning light is best.

When do we add honey supers? Wait until they have filled seven frames drawn out and worked on. If you put it on too early, they'll make a chimney of comb up the middle and not work on the edges. Hardest thing to know is when to do it. Better to err on too soon; they might not do it right, but you can always fix that.

Discussion of how you have to be patient and experiment with bees. The third week of June the flow should be starting. This is a generality as one never knows with the weather!

Pollen traps on? Rules of thumb: is there a lot of pollen stored? Put traps on then. They do hinder raising of brood. Four cells wide above the brood is great! Discussion on different pollen traps. Sundance pollen traps are the Cadillac of traps. They're from Betterbee of New York and a very good company. Call on the phone and they can put it in the mail and save money; they'll send you tracking numbers and the next day air. Put off putting on the pollen traps unless you know they have good stores for the larvae. You can collect pollen all summer as long as they have good stores. Make sure they have enough!

### ***Meeting adjourned.***

**Raffle:** Wooden wine stopper Ray Reynolds made and two garden bee sticks.

**Taste Testing:** Ed and Colette Marshall had six honeys to try from Hawaii, Mexico, France and Ecuador. Yum.

### ***Members Present (who signed in):***

Ty Tobias  
Steve & Donna Victors  
Ed & Colette Marshall  
Ray Reynolds  
Norman & Jeannette Trudell  
Tom Elliott  
Mark & Stacey Buzby  
Wayne Fenn  
Nick Markus  
Todd & Terry Tarner  
Tony Jordan  
Tina Hughes  
Tina & Brock Lane  
Mike Radford  
Mike Dennis  
Mick Blum  
Rick & Jennifer Falk  
Jessica & Kevin Hay  
Leonard Grau  
Scott & Doris Nichols  
Janice Plante  
Earl & Kathy McCown  
Amanda, Elizabeth, Alexander &  
Mattison Leonard

Blair & Mary Wondzell  
Judy Cadra  
Odd & Virginia Kristiansen  
Susan Heuer  
Bob Gengler  
Rick Weber  
Dale & Frankie Shillington  
Ann Gabler  
Anne & Chad Barnett  
Kenn Barnett  
Ed Howard  
Al Haugen  
Herb King  
Lewis & Vivian Miller  
Phil Lincoln  
Susan Ware  
\_\_\_\_ Baker  
Bradley Pietila

|                                                                           |
|---------------------------------------------------------------------------|
| <p><i>How fast does a honey bee fly?</i><br/>About 15 miles per hour.</p> |
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*How much honey would it take to fuel a bee's flight around the world?*

About one ounce.

*What is the U.S. per capita consumption of honey?*

1.1 pound.

## **Moving Colonies A Very Short Distance**

Richard Dalby – Bee Culture June 1995

**M**oving hives across the country is a way of life for migratory beekeepers. For us hobbyists and sideliners, the typical move is more likely to be from one corner of the backyard to the other. For this we don't need a diesel truck, pallets or a forklift. But moving a hive of bees a distance of less than a couple of miles does require attention to one potential problem, the possibility of the field bees returning to their old location. In a populated area this can create a public relations problem because such homeless bees can, and usually do become downright cross. This we want to avoid. Specific advice follows, but first an explanation of why bees moved a short distance sometimes return to the site of their old home.

The phenomenon has to do with honey bee orientation. Those young bees seen hovering in the air in front of their hive on a warm afternoon are taking a play flight. But they're really not playing. Besides sharpening their flying skills, these young bees are very carefully "marking" the precise location

of their particular hive. They do this by noting in minute detail the look of their hive and its location in relationship to other nearby objects such as trees, fences, houses and so on. Once the hive location is "imprinted" on a young bee (or an older bee emerging from the hive after a long confinement), the bee will always return to that exact location.

This is a wondrous thing. But as noted, it can lead to problems if a hive must be moved. Fortunately, a hive of bees moved a short distance can be made to relearn their location. Once imprinted with their hive's new location, such bees will not return to the site of their former home. So the trick is to force the moved bees to mark their new location. There is a number of ways to do this. And, depending on the time of year a hive is moved, you may have to do nothing at all. For example, a hive moved in winter or early spring, when the bees will be confined by cold weather for at least two weeks, will cause no problems. When the bees emerge they will mark their location as a matter of course.

On the other hand, moving bees that have been flying freely, particularly during a honey flow, requires attention to detail lest many of the field bees return to their old location.

One foolproof method, found in many of the standard sources, is to move your hive or hives from their present location to a spot at least two miles away. Leave them there for a couple weeks, and then move them back to their new location. Bees moved in this

manner will learn their new location as a matter of course. But this method involves a good deal of time, effort and equipment and is often not practical.

Another old method is what might be called the “shake-em up” approach. Here’s how it works. First, the bees are smoked well at the hive entrance. Then the hive is loaded onto a wheelbarrow and jounced about in a rough manner while being moved to its new location. It is important that the bees get a good shaking-up for this gets their attention and causes them to mark their new location. The hive is then unloaded in the desired spot. The entrance smoked again, and a handful of grass thrown at the entrance to further put the bees on notice that they have been moved. This method works best when there is no honey flow in progress - and when neighbors are quite a distance away.

Another quaint method is what might be termed the “incremental movement” method. This method works best when you want to move a hive just a short distance (say 10 feet or so) and there are no other hives nearby that might attract returning bees. Here’s how it’s done. Each day (or evening, if you prefer), you move the hive in question about a foot toward its new location, until you have reached the new site. Returning bees seem less likely to be disoriented when their hive is moved backward or forward in this manner as opposed to sideways movements, which perhaps should be no more than six inches each day. (It is of interest to note

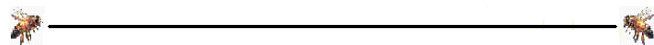
that races of bees vary in their ability to find their hive if it is moved a short distance, the old black bees doing it the best, the Italians the worst.)

Now, one last method for a successful short distance hive relocation. This is what might be termed “the glass is always cleaner” method and it’s my favorite. It requires a piece of glass or clear plastic such as Plexiglas. Here’s the way it works. First you move the hive in question to its new location in the evening when all the bees have stopped flying. Then, with the hive in the desired spot you place the glass or plastic in front of the hive, the bottom side on the ground and the top side leaning against the hive, so as to form an angle of, say, 25 to 35 degrees relative to the front of the hive. The glass should project four or five inches beyond each side of the hive entrance so bees leaving and entering the hive must fly around the glass. With the glass in place, all bees leaving the newly moved hive are forced to note that something is radically different. Something is blocking their normal straight in-and-out flight path. This gets their attention and causes them to mark their new location, which is just what you want them to do. I like to leave the glass in place for at least a week to make certain all the flying bees reorient themselves to their new location. The bees soon learn to fly in and out of their hive by going around the glass barrier with little loss of time and effort, even during a honey flow. (For this method to work best, you must make certain that all

flying bees enter and exit the hive through the front entrance, so seal all other holes and cracks before the hive is moved.)

A few more caveats. No matter which short distance moving approach you use, make certain the hive (or hives) is securely strapped (best) or stapled together, and smoke the entrance a reasonable amount before and after the move to get the bees attention. And, if you notice more than a few bees flying confusedly around their old hive location, you can place a hive there containing just a frame or two to catch these stragglers, then come evening, shake the clustered remnants at the entrance of the newly moved hive. And remember, glass can break or cut, so wear gloves when handling it and be careful. Tempered glass is preferable. A piece of clear plastic is best of all.

So if you have a hive or two that must be moved to the other side of the garden, the other side of the house, or the other end of the field, there are various ways to do it without losing your field force and perhaps creating problems. Knowledge and attention to detail are the main factors in a successful hive relocation, as they are in all beekeeping activities.



## Swarm Prevention

**S**warm prevention is often the goal with the beekeeper, and swarm promotion is

often the goal with the hive. Nature's way of propagating the species often gets in the way of the production of honey. The beekeepers goal is to get the population of the hive as high as possible without triggering the swarm. It is the bees that gather the honey, and the more of them, the more they will gather. A certain number of bees are necessary to maintain and care for the brood nest. For the sake of argument let's say that a brood nest is at full size of 8 deep frames and it takes 3 to 4 pounds of bees to cover and tend it. This comes to about twelve to fifteen thousand bees. These are the consumers of the hive. They are fed and kept alive by the efforts of the foragers, a work force of about forty to fifty thousand bees. Because there are three times as many producers (foragers) as there are consumers more food is brought in than is used up, and that is the good news for the beekeeper. It is about at this population level that the bees tend to reach full strength and decide to swarm out in search of a new home (taking half of the hive with them and a couple of pounds of honey with them). The house bees stay behind because there is still all that work to do. It is the extra foragers who go off to start a new home. If we look at the population dynamics of the hive after the swarm we now have about the same number of consumers as we have foragers and the income of food does not greatly exceed its consumption as it used to do. In fact it may that the bees eat up the surplus that they have while raising another batch of foragers. Therefore, there is no surplus for the beekeeper to take advantage of. This is why it is bad news for the beekeeper to have a swarm if they are in the honey business. If the intent of the beehives is strictly for pollination then it

makes little difference because the bees are still in the area but are now in two homes. Knowing the signs of swarming and being able to predict it helps the beekeeper keep ahead of the bees and will increase the honey yield. As far as I know bees can't count. They need to rely on some other method to let them know when the population is large enough to be able to split the hive into halves and go their own way. It is suspected that bees rely on a combination of things that give them the idea that the hive is becoming crowded. Increased congestion and lack of good airflow are certainly factors. To the beekeeper this means that the bees are filling up all the spaces between the frames with their bodies. Loss of ventilation and air circulation will lead to a buildup of carbon dioxide and heat. If the bees have no space to expand into to relieve this congestion, the bees are very likely to swarm. A common method for providing more room is reversing supers. By this the beekeeper takes the lower super that is empty of brood and places it above the brood nest. Queen cells generally form along the bottom bars and around the edges of the comb during swarming time. A key point to remember is that it takes a queen 16 days to go from egg to emerging queen. Swarms leave the nest prior to the emergence of a new queen. For practical purposes, this means that when a swarm cell has an egg deposited in it, there are approximately 14 days before the bees swarm. To the beekeeper, this means that if part of the swarm prevention measures that the beekeeper employs includes removing queen/swarm cells. The beekeeper must remove the cells within this 14 day time period. The presence of queen cells indicates to the beekeeper that the bees think

something is wrong with their home. If swarm cells are present, add a super to give more space. The beekeeper should also keep in mind that all developing bees spend three or four days as an egg or young larvae that is basically indistinguishable from any other type of bee. For practical purposes this leaves only a ten day period in which a beekeeper can find a swarm cell before it is too late.

In my personal swarm prevention program, I provide extra supers for the bees to move into before they become crowded. Religiously inspect the hive once every ten days. I remove all queen cells even the empty ones whenever I find them. I have noticed that I rarely get swarm cell before the middle of June. After the middle of June, my hive inspections are more detailed and thorough as I carefully examine all frames in the brood chamber. Caging the queen will also prevent swarming but only after the hive has been inspected a few days later for emergency queen cells that can be found anywhere in the brood nest. Make a very careful inspection here; emergency cells can be very hard to find because they may not stick out too far from the face of the comb as the bees can reshape the cells under the queen cell to give room for its shape.

*Do you have a plain wooden observation hive with two frames? Steve Victors is missing his.*



Honeybee death mystery deepens  
Colony collapse disorder linked to mix of fungal and viral infections  
By [Eva Emerson](#)  
Web edition : Thursday, May 27th, 2010



Bee gone U.S. bee colonies began to be infected with the fungus *Nosema ceranae* a few years before bee numbers began dropping. Jay Evans/USDA-ARS

SAN DIEGO, Calif. – A one-two punch by a gut parasite and viruses may help explain the mysterious decline in U.S. honeybees seen over the last four years.

Bees infected with both the fungal parasite *Nosema ceranae* and with any one of a handful of RNA viruses were much more likely to have come from hives on the decline than from healthy hives, researchers reported May 25 at a meeting of the American Society for Microbiology.

The finding represents a new twist in a complex and multifaceted scientific problem, termed colony collapse disorder, made urgent by the continuing and severe losses suffered by U.S. beekeepers beginning in 2006. About a quarter of beekeepers have been affected, according to the Apiary Inspectors of America, an industry group. These beekeepers, including honey producers as well as many who lease out their bees to pollinate food crops, have reported losing between 30 and 90 percent of their hives. The latest nationwide survey, of 2009-2010 winter losses, revealed more than 30 percent of hives were lost for a variety of reasons.

"We think that *Nosema* leaves the bees more open to infection by other organisms," said bee researcher Jay Evans of the United States Department of Agriculture's Agricultural Research Service in Beltsville, Md., who presented the new results. "Our current thinking is that the *Nosema* parasite is a precursor to infectious diseases" that lead to colony collapse disorder.

That view represents a shift: In 2007, many scientists were discussing the role *Nosema ceranae* might play in colony collapse, but Evans and his colleagues failed to find a clear link between the parasite and affected hives.

Only when scientists looked at the *N. ceranae* pathogen, which causes "bee diarrhea" among other symptoms, in combination with members of the dicistroviridae family of RNA viruses, did a strong correlation show up, Evans said.

*N. ceranae* is a relative newcomer in the United States and Europe. It was first identified in domestic bee colonies just a few years before the bee declines began and has since become the dominant *Nosema* species, Evans said.

Eric Mussen, an apiculturalist at the University of California, Davis, says "it's been awfully hard to tell whether a virus or *Nosema* or anything else is the culprit" in colony collapse.

"You find viruses in healthy colonies. *Nosema ceranae* is everywhere," he says. "But I presume that if you have a parasite it would definitely affect the bees' ability to deal with the virus. That makes sense to me."

Although *Nosema* can be treated with an antibiotic "medicine," Mussen says the parasite is particularly hard to get rid of entirely. So are viruses, although there are some new methods being tested for lowering overall levels of viruses in hives. The mites that spread viruses are also a problem, he says. "We've got a problem with all these stresses, all rolled in together."



**Southcentral Alaska Beekeepers Association**

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