

2013年3月度土曜例会 (2013/03/16)

本日のゲストスピーカーは Pat さん。前回奥さんの Lila さんと共に日本ではなじみの薄い教育システム、Home schooling について7人の子供たちに21年間に渡る実践を通じての説明でした。さて本日のテーマは“A Hobby *Buzzing* With Excitement” なんじゃこりゃ、*Buzzing*? それが趣味? 配布された資料にはミツバチの絵です。ミツバチを飼って蜂蜜を採取し純度の高い美味しい蜂蜜を味わう、それが趣味、そんな事がどうして出来るのかしら? 話を聞き進んでいくうちにこれは趣味の領域を超えているなど感じませんでした? まずは専門用語をインプットしておきましょう。



Beekkeeping Words and Meanings

Abdomen	Lower portion of the bee's body; it contains the stinger & wax producing glands
Antenna(e)	The sense receivers on the head of a bee; used to smell and feel
Apiculture, Apiarists	Beekeeping , beekeepers
Box	One section of a hive that contains ten frames
Colony	A collection of bees which includes a queen and enough workers to sustain the group
Comb (honeycomb)	Rows of hexagonal cells that are used to store honey and grow bee larvae
Compound eye	An eye with many parts where each part sees a little part of an object
Divide a hive	To use part of a hive to make a new one; to divide a hive in two
Extractor	A machine that uses centrifugal force to draw honey out of the comb
Frame	A wooden rectangle with an added wax foundation used to aid bees as they make honeycomb
Hive	A collection of one or more boxes to raise bees; it has only one queen
Mandible	Jaw-like biting part of the bee; also used to hold and cut things
Nectar	The sweet juice in a flower that attracts bees and other insects
Pollen	The powdery, usually yellow, fine powder needed to fertilize a plant
Pollenate	Fertilizing a flower or plant by moving pollen from one plant to another
Sting, stinger	When a bee inserts his stinger into an intruder's body; it is not "bite"
Swarm	When a queen takes part of a hive's bees to start a new hive
Thorax	Middle part of a bee's body; t has three pair of legs
Tube-like tongue	A tubular tongue used to draw in nectar, water or honey; also called proboscis
Wax foundation	A plastic board lightly covered with wax shaped into hexagons (6 sided shapes)

Beekkeeping にはまったきっかけは Our adventures in beekeeping or apiculture began while we were living in Wisconsin. My friend Alan decided to get a bee hive to help pollinate the apple and pear trees and plants in his garden. That first year he invited me to look inside a bee hive or bee box as they are often called.

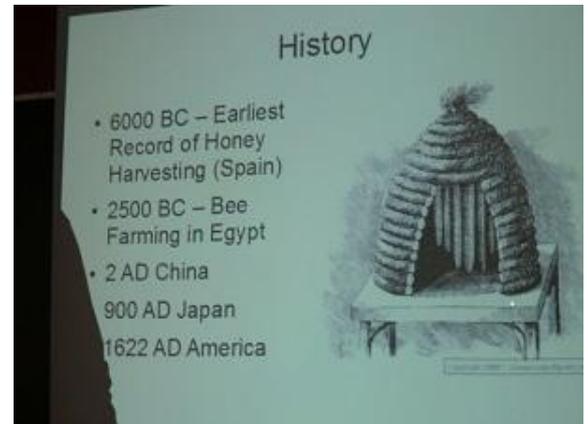
ところでハチに刺されると言う言葉は bite ではなく sting です、間違っ使っていましたとのこと。話の内容は
1) ミツバチの種類 2) Beekeeping の歴史、3) ハチの体、及び行動特性 4) 蜂蜜の採取方法 そして
5) Q&A, Q&A の間 Lila が美味しいピュアな蜂蜜を皆さんにサーブしてくれました。

1) ミツバチの種類

Some popular types of bees used in America today are European, Russian, and Italian. We have Russians right now. They are hardworking and healthy. But, they are also more aggressive than most other bees. If you will keep your hives near where children or pets play, you would probably want to pick the Europeans because they are the calmest. There is another bee that was imported to Brazil in South America called African bees. They were chosen because they work so hard. But they also have a problem. They are the most aggressive when they feel like their hive is threatened. They will attack a human until he or she is dead.

2) Beekeeping の歴史

Cave paintings in Spain show that Spaniards were collecting wild honey by 6,000 BC. Certainly it was the Europeans that taught the rest of the world much about farming bees and harvesting honey. In 1250 BC, the Israelites were getting ready to enter the land their God had promised them. It was called the land flowing with milk and honey. So by this time in history many nations understood the value of honey.



In the Orient, the first historical records are in China about 2 AD. The Chinese passed it to the Koreans and the Koreans brought bees to Japan. It is claimed that it began at Mount Miwa in Nara Prefecture when an ancient Korean prince named Yoho intentionally let a swarm of bees loose. Honey was an important commodity in Japan by the 9th century and by the 12th century there was a thriving bee industry. In the 9th century, the emperor would give honey as a gift to visitors from foreign lands. It was also used for its healing properties during that era. Beekeeping was introduced to America in 1622 when a British ship brought over 1 or 2 colonies. That's over 150 years before America became a country! Still, the settlers in America continued to use traditional European methods to harvest honey and beeswax. That method included killing the bees each fall to make the harvest.

It surprised me to discover that modern beekeeping is only 150 years old. In 1852, an American pastor named Lorenzo Langstroth discovered that he could make boxes and put frames in them to help the bees make honey. Prior to that, they often used straw baskets as you see here.

3) ハチの体、行動特性



The first is the queen. She leads the hive. She does, but she is little more than a slave herself. Her whole job in life is to lay eggs. A good producer will lay eggs between 1,500 and 2,000 a day. She is pampered and treated like royalty, but if for some reason she cannot produce eggs, the workers will grow one of the eggs in a special way to create a new queen and kick that one out, and also swarming.

Worker bees are all females.

The third kind of bee is the drone. That's the guy. So men, nature didn't forget about us. But wait. A drone's only job in life is to fertilize the queen. After mating, the drone's sex organ is left in the queen – his body is torn apart. And if a drone isn't selected to mate with a queen, he's kicked out of the hive. He will eventually starve to death. Sorry guys.

4) ミツバチの飼育、蜂蜜を採取する手順。



This is a frame. There are 10 in each box. Inside the frame is a plastic sheet that has little hexagons (a six sided shape) on it. This plastic is called foundation. The hexagons are wax and are put there so that the bees have a pattern to show them where to make honeycomb. What it does is make the hive into a little factory.



So with 10 frames in a box, as many boxes as are needed are stacked on top of each other to create the hive. If you were making a new hive, you would start with only one box and hopefully take a few frames from an established hive. Those frames would have honey and honeycomb on them. This gives the new colony a head start.

You may wonder how we get a new colony. You can buy a colony or queen, grow your own, or watch your bees until they decide it's time to swarm. Remember, swarming is when a colony gets too crowded so they grow a new queen and start a new hive.



To divide a hive, you first need to think about the queen. Every hive needs a queen to survive. So you either grow one or buy one.

In the fall, comes the best part. You get to harvest the honey. It can be done by hand or with some modern equipment. The first year, we did it by hand. We took the frames out – one at a time. We cut the comb and squeezed the honey out. Next we had to warm the mixture ever so slightly so that it doesn't get too hot. Too much heat will destroy the health benefits of honey. The heat will divide the honey and the wax. But what a mess! We had sticky goo on the floor, on the counters and on the table. After we finished the process, we had to clean the kitchen.



The better way is to use an extractor. An extractor is machine that uses centrifugal force to draw the honey out of the comb. Take the frames – again, one at a time – and cut the cap off the honeycomb cells.

(趣味とはいえどれくらいの収穫があったのでしょうかね。)

ひとつの bee hive には約 10,000 匹います。今私は 4 箱持っているので 40,000 匹ですが友人の Alan は 150 箱ですからなんと 150 万匹。最近リタイアしたので 300 箱まで増やすそう。一箱からは 18~32kg とれます。従ってひとつのフレームからは 1.8~3.2kg です。(結構沢山とれますね) それを友人などに売る事は構いませんが店で売る場合には法律である種のラベル、栄養価ラベル添付も必要です。我が家では孫たちが付けた“The Honey Bunny Bee Farm.”ブランドのガラス瓶詰めをクラフトショーで販売しました。ウサギも飼っていたのでこんな名前となったのです。かわいい名前でしょう。

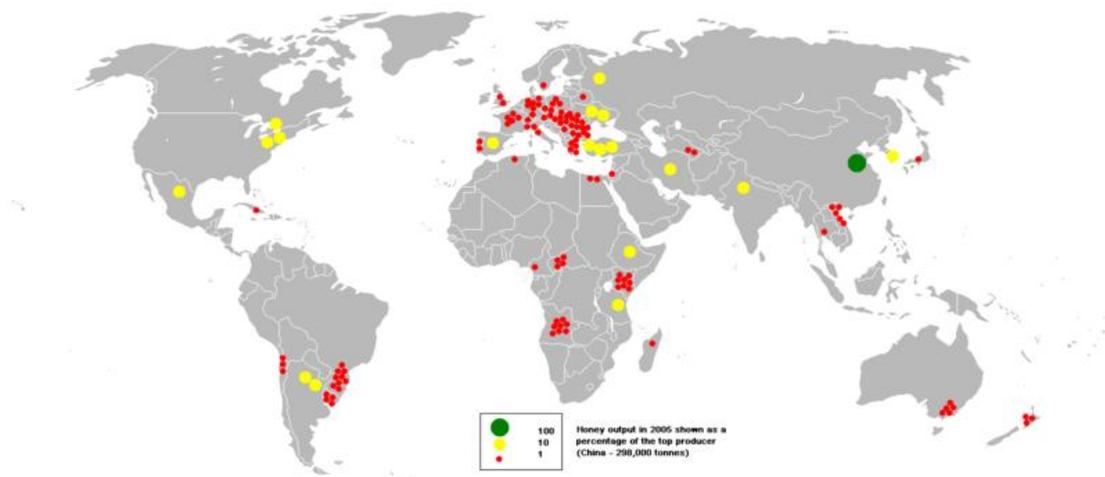
水分含有率は 23%、一匹のミツバチが生涯で作り出す蜂蜜はスプーン 1/12th 杯、hive の天敵はスキャンク、何はともあれハチを観察するのはとても面白いですよ。草刈機の音はハチを刺激するから要注意。

5) Q&A

- 薬効? 傷口を癒す、喉痛を和らげる、咳を鎮めるなどの他、シナモンと組み合わせた蜂蜜はハーブ効果抜群。
- ロイヤルゼリーは? 働き蜂が分泌する成分で女王蜂のえさです。その為体も 2~3 倍、寿命の 30~40 倍。

- 初期投資はいくらくらいでした？ \$ 200 くらいでしたか。Box が \$ 60、意外と着る物などに掛かりました。
- 冬に多くが死んでしまうと聞きましたが。冬場の管理は？ 砂糖水を与えたりします。As you can imagine, many bees die during the winter. In the springtime when the nectar is flowing, they start to increase their numbers. By the height of the growing season, a hive will triple in size.
- ハチにもテリトリーは有りますか？ そんな事はないと思います。あれだけ居ても戦いませんから。
- どれくらい遠くまで飛んでいくのでしょうか？ さあ？ でも巣に帰るまでに 50 以上の花を飛びわたり、3 週間で死んでしまいます。
- ところで他にはどんな趣味がお有り？ 多趣味です。魚釣り、スポーツ各種、そうそう、日本語の勉強もです。
- れんげの蜂蜜など花名が書かれて売られていますか、どうして分るのですか？ 僕もどうして分るのか、不思議です。

右は美味しい蜂蜜をサーブする Lila さん、そして 9 月公開講座のゲスト予定 Ge さんです。参考までに世界の蜂蜜生産高 MAP を添付します。また後で調べてから回答しますとの内容も下記します。



Here's the answer to spelling bee: A secondary meaning for bee is a social gathering. So a quilting bee is a social gathering to make quilts (blankets) and a spelling bee is a social gathering to spell. In old (British) English it was actually boon which change into been. "Beens" (social gatherings) then came to the US as the British colonized it. Somehow in the process it was changed to bee, but there is no record that it had to do with honey bees. Also, the question was asked about phrases that use bee. Some idioms are:

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|------------------------------|---------------------------------------|
| Busy as a bee | To be very busy |
| To have a bee in your bonnet | To be upset |
| Birds and the bees | Talk about sex |
| A beehive of activity | Everyone in the group is very busy |
| None of your "beeswax" | A play on the word business (beeswax) |
| To make a beeline | To go straight to something |