



**August 09, 2020, Vol 1**

**Club Information**

President-Doug Rush

Vice President- Richard Ratigan

Secretary-April Johnson

Treasurer-Kip Davis

Meetings are the second Sunday of the month at 1pm

We have been meeting at the Apiary due to Corvid restrictions. Masks and distancing adhered to.

For information about becoming a member, please write to [jeffcohoneybee@gmail.com](mailto:jeffcohoneybee@gmail.com)

Dues include membership to Colorado State Beekeepers Association

Facebook page- Jefferson County Beekeeper Association; <http://jeffcobeekeepers.org/>

**Last meeting notes**

On July 12, 2020 Seth Charbonneau from Front Range Queens, LLC discussed 48-hour queen cells (and virgin queens). He highlighted how simple it is to become a “surrogate queen producer”, and to start becoming a self-sustainable beekeeper. He left us some queen cells one of which we put in a 2 frame nuc. The cell did not develop as hoped, however, we learned much about the application. Thank you, Seth for a great presentation and learning experience. We hope to have you back sometime.

We have had other great presentations recently. Bryan Zavada demonstrated and presented a worthwhile presentation about the alcohol wash method for determining mite levels. We are so grateful, because the mite check we did that day on one of the hives was high. The hive was treated shortly after that presentation. Thank you, Bryan.

Erik Johnson’s presentation on swarms was fantastic. He covered everything we need to know about capturing swarms. Excellent, thank you Erik.

If there is a topic you want us to provide let us know and we will to our best to get that information. Write to [jeffcohoneybee@gmail.com](mailto:jeffcohoneybee@gmail.com)

If you would like to write an article or have something to share let us know. Write to [jeffcohoneybee@gmail.com](mailto:jeffcohoneybee@gmail.com) attention Kathy Gill.

## **Mentoring**

There are many reasons why beekeepers are beekeepers. What are yours? To save the bees? For the honey? Or is it a business? Whatever the reasons, we must deal with and manage our hives. If you want to mentor someone or you need a mentor let us know and we will help

## **Profile**

Doug Rush was instrumental in getting the Jefferson County Beekeeper Association started. Doug is a remodel and landscape contractor. He has been keeping bees for 5 years in Langstroth hives. He currently manages 8 hives. He will catch swarms and can do cut outs. He has sold bees and can sell start-ups with equipment to those who are interested. He has been and is a mentor to others.

## **What Do You know?**

1. What is the principle reason that both upper and lower hive entrances are recommended during the winter?
2. The honeybee undergoes \_\_\_\_ stages of growth during its development.
  - a. Six
  - b. Four
  - c. Seven
  - d. Five
  - e. Three

The answers are somewhere in the newsletter.

## **Book Review**

By Kathy Gill

The Endangered Honeybee *Saving the Honeybee, Saving Humanity* by Mathew Krajewski (2015)

The author calls himself a bee healer, who focuses on the energetic side, the spiritual side: all energies that effect the honeybee. He discusses how the problems we faced in 2015, from environmental collapse, individual disease, and the plight of the honeybee are all interconnected. "The only way we can truly survive is to save the honeybee and in doing so, save ourselves."

I thought the book was interesting, not knowing what a bee healer is. The book made me think of the issues we face as beekeepers and how can I really make a difference as a hobby beekeeper. Do I really think that on such a small scale I can change the course of the environmental collapse, individual disease, the plight of the honeybee and all pollinators? I decided I am not alone in this hobby. There is a group of hobby beekeepers that are aware of the challenges we face. This group that I am so proud to be a part of care about the environment and are doing positive things to help. Planting their yards full of plants for the pollinators, not using pesticides, and educating the public about the challenges. I give this book 4 stars.



### **Apiary News**

We started with two hives from swarms donated by Doug and April. Two splits were done which made up the four hives. The beautiful art on the hives was done by April Johnson.

Do you have seeds, or plants that could be used at the Apiary? Any donations would be appreciated, Please e-mail the club at [jeffcohoneeybee@gmail.com](mailto:jeffcohoneeybee@gmail.com)

If you have some time and interested in helping with the hives let April or Kathy know.

***Answer 1;*** *The primary reason for having both lower and upper entrances during the winter is to ensure adequate ventilation and release moisture that builds up in the colony during the winter. Ventilation above the brood nest in the winter retards condensation of water vapor, thus keeps the interior of the hive drier. The heat given off by the cluster tends to rise in the hive and will carry some excess moisture with it. An upper entrance will also allow the bees to go on a cleansing flight when the lower entrance is blocked with snow and ice.*

# BUSY BEE BODIES

## BEEginner BEEkeeping

### Bee anatomy

By Eric Skougstad

There are three parts to a bee-- the head, the thorax, and the abdomen.

The head has the antenna. The antenna are two articulating appendages set into rotatable sockets. There is some disagreement as to their purpose, but most experts agree they are for collecting odors, feels and flavors-- smell, touch and taste. Some experts believe that bees can recognize our scents, and the more we go into the hives, the more they recognize us!

"Hi! It's that guy that gives us pollen patties and sugar water! Spread the word! Party in the penthouse tonight!"

The head is triangular shaped when viewed from the front, and sloping backwards at the top. They have five eyes. "Glasses and a monocle?" you ask. No, literally five eyes. The two main eyes we see are the "compound eyes." They are made up of about 150 lenses. They can detect patterns in flowers and are even polarized! The "simple" eyes are three on top of the head. They use these in the low-light conditions inside of the hive.

The "proboscis" is the tongue of the bee. It extends like real-life Go-Go Gadget arms, allowing the bees to get deep inside of flowers. The proboscis-- like the legs-- tend to get coated in pollen, allowing pollination.

The mandibles-- or jaws-- are also part of the head. They are controlled by two muscles, and only articulate side-to-side. The worker bee uses her mandibles for working wax, eating pollen, supporting the outstretched proboscis, and for many chores in and around the hive. Above the mandibles is the mandibular gland. This secretes a clear liquid that's purpose is not entirely known, but that is probably used for-- at least-- the softening of wax.

The thorax separates the head from the abdomen, and holds the legs and wings. The wings are made of chitin, the same material that makes up the bee's outer skeleton. There are two pairs of wings on each side, they are detached at rest, and hook together for flight.

There are two front legs that have small combs, which are used to remove pollen from their bodies. Those front legs are used to pack pollen into the pollen baskets on their hind legs. The two very front legs have built-in antenna cleaners built into the insides of them.

Unlike the front legs, the two hind legs are much larger in size. It seems only the worker bee takes advantage of this trait. Pollen baskets are part of those rear legs, and are used to collect... you guessed it... pollen.

The worker bees also use the pollen baskets to collect propolis, a hard wax substance gathered from tree sap.

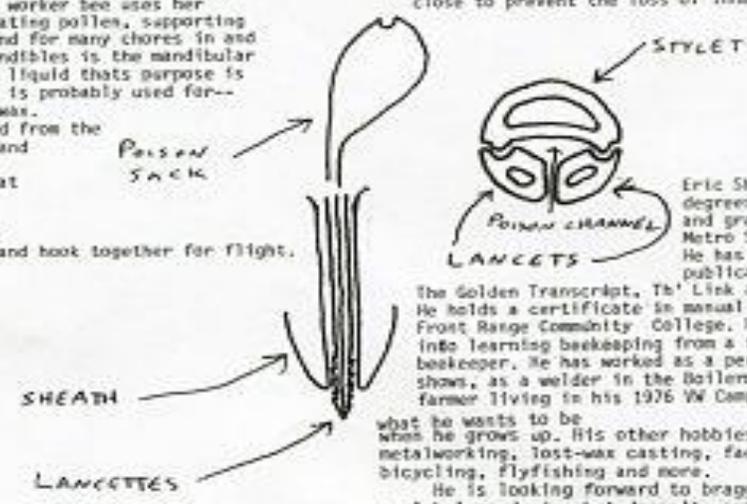
The abdomen houses the most famous... or infamous?... part of the bee-- the stinger. The stinger is very similar to an egg-laying organ seen in other insects. These other insects use the "sting" to make a hold in something that they can then lay eggs inside.

The shaft of the stinger is made up of three pieces-- the stylet and two lancets. Hoisted between the three is the poison canal, connected directly to a "poison sack"

that directly delivers the poison during a sting. When not in use, the sting is entirely retracted into a chamber in the abdomen-- basically a sheath.

The scent gland of the worker bee is also located in the abdomen.

Also of note is the tracheal system. The trachea extends throughout the thorax and abdomen through spiracles-- small breathing pores. The adult honeybee has three thorax and seven abdominal spiracles. All of the spiracles (except for the miniscule second spiracle) can completely close to prevent the loss of inhaled air.



Eric Skougstad holds degrees in Journalism and graphic design from Metro State University. He has written for many publications, including the Golden Transcript, Th' Link and The Metropolitan. He holds a certificate in manual machining from Front Range Community College. He is four years into learning beekeeping from a fourth-generation beekeeper. He has worked as a performer in BMR/Freestyle shows, as a welder in the Boilermaker's Union, and as a farmer living in his 1976 VW Camperbus. He doesn't know

what he wants to be when he grows up. His other hobbies include woodworking, metalworking, lost-wax casting, faceting, engraving, bicycling, flyfishing and more. He is looking forward to bragging about surviving a global pandemic, but doesn't want to count his eggs before they are hatched.

## **Murder Hornets**

By Kathy Gill

When the Asian giant Hornet was sighted in Canada and the Pacific Northwest in 2019, stories hit the news, alarming the public. I admit, I was concerned at first, So, I went on a search.

The colony was found on Vancouver Island, British Columbia last September. The colony was destroyed. Then a single, dead hornet was found in Blaine, Washington in December. There is no other evidence of hornets in the area. The Asian Giant hornet, *VESPA MANDARINA*, is common in Asia. They are large, and, have an orange head with a black-banded orange body. They will defend their nest if the colony is disrupted. They have longer stingers than the honeybee. The stinger does not break off when they sting. They can sting through thick clothing and their venom is 8-10 times the amount of the average honeybee. In most cases, they will not do anything if people are not aggressive towards them, according to Akito Y Kawahara, Associate professor, and curator of insects at the Florida Museum of Natural History.

The hornets are more interested in beehives for the brood. In the fall season, time is getting short, and workers need protein to feed queens who will shelter during the winter and start new colonies in the spring. They attack and kill adult honeybees in the hive to get the brood. The hornets chew the brood into a paste to take back to their hive and feed their larvae. For more information visit the fact sheet available from Washington State University

<https://s3.wp.wsu.edu/uploads/sites/2091/2020/04/AGHPreReview4Factsheet.pdf>

## **Experts on “Murder Hornets.”**

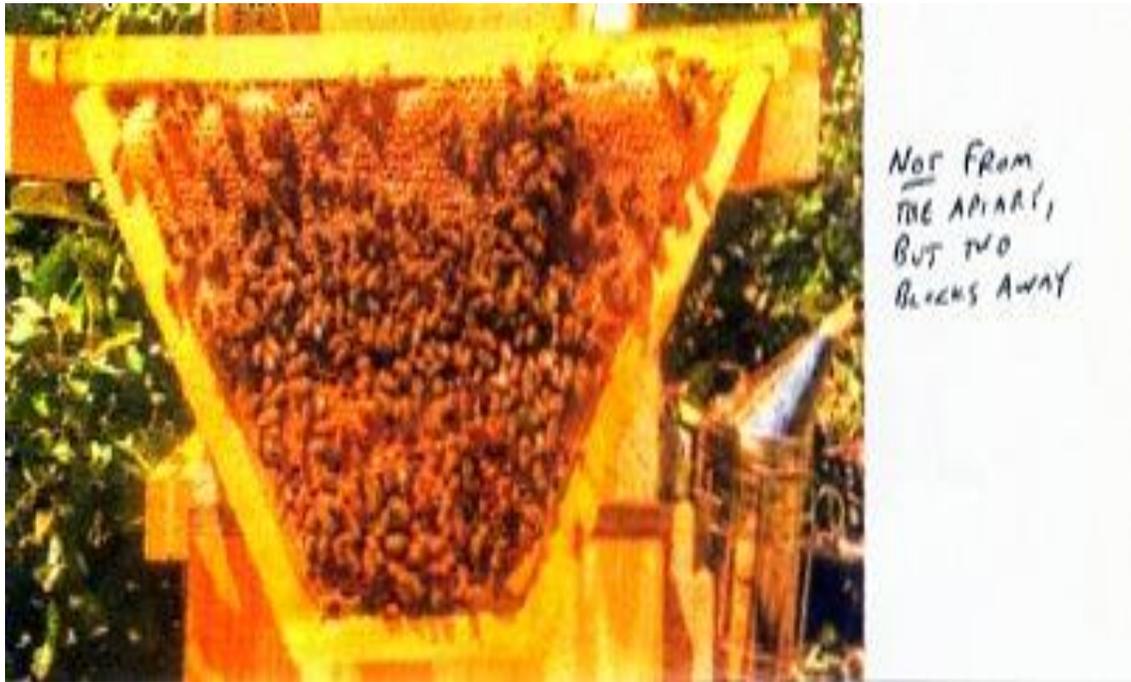
By Eric Skougstad

Dr. Samuel “Dr. Bugs” Ramsey, a postdoctoral researcher at the USDA in Maryland, conducted some of his research in Thailand where he conducted some of his research on Asian giant hornet. He describes the appearance as, “It looks like somebody stitched together a bunch of nightmares.” He describes the bulbous, tear-dropped eyes, and bodies the size of a human thumb.

Bees in Asia have learned to kill the hornets. The honeybees lure the scout into the hive and form a ball on the hornet. The honeybees begin to vibrate their flight muscles. The friction creates heat, and the heat cooks the hornet alive in its own shell. The action also creates carbon monoxide, so the hornet also suffocates. Ramsey believes the “murder hornet” name is warranted, to raise awareness about their possible presence in the United States.

On the other side of the argument is Whitney Crenshaw, a Colorado State University professor and extension specialist. Crenshaw does not agree with the shocking nature of the term, “murder hornet.” “All hornets murder stuff”, he says. “I mean, what we call a very common insect around here, is technically a black yellowjacket, the bald-faced hornet-it murders insects all day...at this time, it is premature to think that this is going to be a threat.” **Answer 2: Five**

Colorado experts have pointed out that the Asian giant hornets have not yet ascended to the elevations of Colorado, so we really have no need to fear them just yet.



NOT FROM  
THE APHANT,  
BUT TWO  
BLOCKS AWAY

What is this? You got it, top bar frame.



