

Gaston County Beekeeper's Association

Next Meeting Oct. 27th

**7 pm Citizens Resource
Center Dallas, NC**



Upcoming Events:

Dec. 8th Annual Holiday Get Together

GCBA is selling tickets for our annual winter banquet to be held on December 8th. The ticket price is \$15.00 per individual and children 12 and under eat free. The banquet will be held at the Citizens Resource Center where we normally hold our monthly meetings and food will be catered in by the Sports Page of Charlotte. It will be buffet style with a vegetarian option for those whom want it. Our main course options include country style steak and gravy and smothering chicken breast with side dishes of green beans, macaroni & cheese, and mashed potatoes. The meal also includes side salad, bread, and a dessert. If you wish to bring an additional dessert for the group you may do so. Tickets are available for purchase in advance so that we can give the caterer the most accurate head count, all tickets must be purchased by Nov. 18th and will NOT be sold at the door. At the time of purchase we need to know how many youths if any you will be bringing and if you need any vegetarian meals for your group. See the Treasurer Jill Tipton & Registrar Jada Runkle for meal tickets.

There is more to the Gaston County Bee Association than the monthly meeting, though the fun and fellowship are nice. Part of what has been growing is being developed into action committees.

Do you have an interest to do a little more like write a newsletter article, help with the club hives, teach a part of bee school, help find speakers or topics for the monthly meetings, or even mentor to a "newbee"? Then ask an officer to help direct you to that committee person.

Currently Michael Reese is looking for help with the future mentoring committee. He is looking for a few people to help organize the committee, but more people throughout the county to share their knowledge and experiences. Some of that knowledge and experience may be giving the first look under the hive cover to the newbee or to answer those questions that some are too nervous to ask the group. You do not have to be a master bee keeper but someone willing to talk a little "buzzzzz". Why not step up you might make a new friend and who knows even learn something along the way! Please contact Michael at mareese85@yahoo.com

Around the World: Elephants & Bees Project

Beehive fence, currently in Kenya, Botswana, Mozambique, Tanzania, Botswana & Sri Lanka



Our Beehive Fence Design

The Beehive Fences are simple and cheap, made with no cement and using only locally sourced materials. Hives, or dummy hives, are hung every ten meters and linked together in a specific formation so that should an elephant touch one of the hives, or interconnecting wire, the beehives all along the fence line will swing and release the bees.

We have field tested this Beehive Fence design in three rural farming communities in Kenya with over 80% success rate. Any type of beehive can be used although our project focuses on using Kenyan Top Bar Hives and Langstroth Hives as they swing efficiently in the Beehive Fence and provide optimum honey yields for the farmers. Beehive Fences are cheap to construct costing approximately \$150 to \$500 per 100m depending on what types of beehives are used.

Rural small scale farmers benefit from Beehive Fences in many ways including:

- Reduced invasive elephant crop raids that often cause trauma and injury to family members;
- Increased yield production through both reduced damage and, potentially, increased bee pollination of crops;
- Additional income through the sale of ‘Elephant-Friendly Honey’ and bee products;
- Increased quality of life with greater income and less life-threatening HEC conflict situations with elephants.

In most areas the concept of Beehive Fences is easily adopted, as beekeeping is an age-old activity that the majority of African communities already participate in. Traditional communities commonly harvest wild honey from wild hives and enjoy honey as a natural food source and sweetener. Although modern box hives and beekeeping is often new for our farmers, they adapt quickly to the simple skills needed to look after the hives and to harvest honey efficiently.

Indirectly, the project supports an increased honey bee population into farming areas which are, mostly, experiencing human expansion and development. Often such expansion includes negative activities such as

overgrazing, land clearance and charcoal burning. Additional bee pollinators in such areas should help to increase pollination rates of natural vegetation such as trees, bushes, flowering shrubs and wild grasses. This not only increases quality forage for livestock but also maintains a carbon sink for storing atmospheric carbon. Additionally, farmers might begin to see beekeeping as a more sustainable and financially viable alternative to charcoal burning as one tree can support many beehives for many years, but only produces one bag of charcoal once.

Mammal Monitoring

We are presently deploying and expanding a network of camera traps around the outside of beehive fence protected farms that are being constantly monitored by our team of interns and volunteers.

Why we are using camera traps?

Firstly, we want to find out what animal species are living in and around our bee-hive fence community so that we can monitor and record any other crop-raiding mammals that may be having an impact on beehive or farm productivity (other than elephants!).

Secondly, we are attempting to record and observe the nocturnal behavior of the elephants that are migrating through the community, either crop raiding farms, or on their way to distant lands. In particular we are keen to see how elephants react to the beehive fences as we want to determine whether the elephants are avoiding the beehive fences due to the sight and sound of the bees, or whether the bees are actually swarming out of the hives to sting the elephants at night.

Pollination & Botanical Research

Honey bees are highly organized social insects with elaborate systems of communication. They have been reared for decades by both commercial and small scale farmers for their honey and beeswax. In our Elephants and Bees Project, the knowledge of the bees' defense mechanism has been exploited to act as a natural deterrent for crop raiding elephants by establishing beehive fences around small-scale farms. The hives get naturally occupied by honeybee colonies swarming

within the area and are protected from excessive sunlight, pests, and predators. With live bee colonies, our beehive fences are now not only reducing harmful crop raids but the bees are also helping to provide an additional income to the farmers in the form of honey and candles from the beeswax. However, there is a third vital benefit that the beehive fences are providing to the farms – pollination services.

POLLINATION SURVEY

Our pollination survey research will document diversity, trends and distribution patterns of the honeybees themselves, other flower visitors and their forage plants within the Elephant and Bees Project area. The study is being led by our Elephants and Bees Post-Doc, Dr. Flora Namu, a pollination researcher and lecturer from Kenya's Karatina University. Together, we have identified hundreds of pollinators and we are recording whether these insects visit each indigenous flower type for nectar and/or pollen. This fascinating study is being assisted by our team of Elephants and Bees interns both from within Kenya and further afield.

BOTANICAL SURVEY

One of Kenya's most experienced ethno-botanists, Anne Powys, has been helping us to identify all the natural plants in our study area, highlighting which plant species are important bee fodder, particularly during the dry season. We have now collected and pressed hundreds of plant specimens around Sagalla which are stored in a new herbarium in the Elephants and Bees Research Center. The herbarium stores and preserves these essential plants creating a baseline reference for our pollination survey as well as a valuable asset for future studies by students and other researchers.

Elephant-Friendly Honey

While the beehive fences themselves are primarily important in that they mitigate human-elephant conflict by deterring elephants from crop raiding, they have an additional benefit: they produce delicious “Elephant-Friendly” honey.

The Elephants and Bees Project purchases the raw honey from the farmers at a generous price, ensuring that farmers participating in the beehive fence project have an alternative source of income and stay motivated and engaged in the project.

PROCESSING THE HONEY

Our Langstroth and Kenyan Top Bar hives are essentially wooden boxes with rows of “bars” – wooden frames on which the bees build the combs that store their brood (bee eggs and larvae), pollen and honey. In order to separate the combs with brood from the combs with honey, each of our hives has a “queen excluder” screen that allows the smaller worker bees through but prevents the larger queen bee from entering and laying eggs. Come harvesting time, we are able to remove only the bars with honey, making the honey processing easier and preventing the queen bee and the brood box from being overly disturbed.

Once the capped bars have been removed from the hive, they are taken to the research center’s Rufford Honey Room. It is at this stage that most commercial honey is heated and pasteurized. Not ours! We are proud to say that our process is 100% raw and unheated and leaves the honey pure and completely unaltered. To extract our honey we simply place the bar frames in a manual centrifuge. Cranking the lever causes the frames to spin in a circle, releasing the de-capped honey from the combs. The honey then pours out of the bottom of the centrifuge, passes through a sieve and – voila! – it is jarred and ready to be spread on some toast, sweeten some tea..... or in our case, eaten by the spoonful!

ELEPHANT-FRIENDLY HONEY SALES

Bars from the hives of different farms are never mixed during processing, so each farmers’ jars of honey produced are a unique color (ranging from a dark amber to a warm yellow), has a unique flavor, infused with the flowers of each particular farm, and is influenced by the foraging preferences of each hive’s resident bees. No two jars are ever the same!

Value Added Products

Though bees are most famous for their honey (and ability to scare off elephants), they offer numerous additional benefits to beekeepers willing to invest a little extra time and energy.

Beehives can be a source of not only honey but also beeswax, propolis, royal jelly, and pollen. While often discarded, these valuable secondary beekeeping materials can be transformed into a wide variety of value-added products including candles, lip balm, soap, and body cream.

Here at the Elephants and Bees Project we're not only producing plenty of lovely honey but we are also currently developing and selling elephant-friendly candles and lip balm.

For more information check out their website! <http://elephantsandbees.com/>

Gaston County Beekeepers Association

Website: www.gastonbee.org

Facebook: <http://www.facebook.com/gastoncountybees>

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