THE HONEY BEAR
For the love of Bees

OF BEES & HONEY

NEWSLETTER NOVEMBER 2008

THE AFRICAN (KILLER) BEE SURVIVAL GUIDE

Early on in my life I found myself as a conscript in a guerrilla warfare situation in the triangle formed by the borders of Mozambique, Malawi and Zambia.

Some of the most dramatic events that the combat group of which I was a member encountered during the entire time of duty in that area were actually caused not by man, but by enraged swarms of bees. Nothing had prepared me, or the other men for the totally murderous intent of these sudden and brutal attacks.

As a child I used to watch my mother's annual opening of our "kitchen" hives, which was executed without much ado or protection. Actually, in all it was a quiet placid or "civilised" affair. Perhaps a better description would be a happy ritual on sharing Nature's magnanimity.

I must mention that those hives were cylindrical of about 1 x 0.5m and were made out of solid pieces of cork oak's bark (*quercus suber*).

The story is quite different in Africa. At about noon on a warm winter's day, one moment we were following in a single file through miombo forest and the next there was chaos resulting from what seemed to be a massive grenade that had exploded amongst us. The difference between the real army weapon and this one was that there was hardly any noise and the "shrapnel" was made up of swarms of insects from hell. Suddenly we were fighting for sheer survival.

Our usual technique of fighting it out in ambushes or even splintering in all directions did not help us much either, as most of us had almost immediately acquired a personal cloud of enraged bees that were dive bombing our heads.

Luckily there was a fellow among us who could make instant decisions and would not lose his composure in the most trying of situations. On top of that it just happened that he was one of the few that had been spared the attack. Out of the pandemonium his voice rang out quite clear, shouting at us to stay where we were and to cover ourselves with our blankets. In reality most couldn't hear him above the mayhem of shouts and screams, or even worse, our personal panic.

Besides shouting instructions, he also led by example in a most laudable manner and in no time, others followed his example.

With outstretched arms holding a blanket that was flying over him, he ran to another man who was being so seriously stung that by then had lost his self-control, and wrapped it tightly around both of them.

In no time there were pairs of men lying about on the ground while embracing each other as tight as they could, so that they would make themselves as small as possible. Male bonding at its best, one might say.
Most probably this attack may have been aggravated by the serious body odour that emanated from some thirty men that hadn't been close to water for a week.

Some years later on a national conference about bees that I attended, an overseas guest speaker did mention, to my great amazement, about the hyper defensive tendencies manifested by bees in that same part of the world.

What is interesting is that in the same general area there were two other types of honey bees, although quite different, as these were not only much smaller and placid, but actually stingless.

Stingless or not, they could still be a huge nuisance, especially the tiny black ones, which tried to take any fluid they could find from our eyes, nose or mouth. Their hive was always underground and the few ounces of honey one may encounter there was actually quite good. If I am not wrong, in South Africa they are called "mopane" bees.

The other type of stingless bees was a lot bigger, more rare and made their nests in holes in trees. From what I could gather, its honey was highly sought after, not only for its quality, but also for the easiness in raiding their hives. Perhaps these facts may explain their small numbers.

The world of the bees is a world of smells. Pheromones, if you like.

Queens control all workers' actions. There is a coterie of bees that follow every queen's move and whose main job seems to be, besides feeding the queen, to spread her smelling (pheromone) instructions throughout the hive.

With their very keen sense of smell the workers not only find food, but also discover intruder bees and other insects, or potential threats from larger predators around their hives.

According to fairly new research, bees can be trained in ten minutes to detect explosives in land mines or bombs in luggage at airports. By comparison, dogs take no less than three months to learn the same job.

Not much would happen if my mother was stung a couple of times while raiding our hives other than some local swelling. The reason for it is that honey bees are not programmed to react to the pheromones contained in their attacking weapon.

As you may have learned in previous newsletters, normally it takes only eight stings for a person to become immune to bee venom, even if these had occurred over some years. It should be mentioned that true serious allergic reactions are very rare and are suffered by less than 1% of the population.

The exception is *Apis mellifera scutellata*, better known as the African yellow bee, or "killer bee" as named by the Americans.

As mentioned previously, the theory of evolutionism may also apply here. Basically, the more aggressive the predators are, the more defensive you have to become if your species is to live on. For a species to survive relentless and brutal depredation, in this particular case of bees by man, it has to adapt and ultimately develop its own means of self-protection.

CONTINUED...

...SURVIVAL GUIDE CONTINUED

As a beekeeper I do get stung quite often and so far do not swell that much anymore. But as soon as the first sting strike's home, I not only notice the bitter almond smell of it very clearly in the air, I also can taste it in the mouth.

For certain the bees can smell it much better than I do. Immediately it has the effect of raising their alarm bells, as well as blowing the trumpet call for a charge. These acts are not only committed by the guards, but by others bees as well that happen to be near the hive's entrance at that given time, and will target anyone in its proximity.

The more stings they place, the more pheromones concentration in the air and logically the more mayhem at hand.

If it happen that cats, dogs, horses, cows and even humans, lions or elephants for that matter are unable to run away or find shelter in a dark place, the prognosis will not be good at all.

Literally, and in the same way as humans react in many societies, they can't stop themselves once aroused to the same insane moods of a riotous mob.

There is a proper formula about how many stings per kilo a victim can normally withstand. For adult humans it is something like 250 (3 per kg). Considering that the population in a good size hive could be around 60.000 bees, one can arrive at that critical number fairly quickly.

Death of a Beekeeper

Very recently it appeared in the news the very sad story of a beekeeper that died while trying to remove a swarm in Pretoria. Some facts about it have now come to light.

- He was still a trainee and without a licence.
- He had health problems. (A beekeeper has to be a healthy person. A good heart is a must to withstand regular or even serious bee venom intakes into ones system)
- He tried to remove a massive swarm during daylight hours (16H00).
- Not only that, but in a built up area.
- His protective gear was defective. (Bees were found inside the veil)
- He was probably prone to panic reactions. (When he was found after the attack his hands were out of the gloves and as expected, stung on a massive scale)

How to avoid being stung

- Disturbing bees in a strong hive by knocking on it, for instance, will cause an immediate and general attack. It will be perceived by the bees as an attack by a dangerous predator.
- "Hanging" around strong hives particularly on hot days should be avoided, as bees become quite irritable in these conditions. The opposite is also true, as bees are unable to fly below 8 degrees Celsius.
- Only in exceptional situations should one work on hives or remove strong swarms during the day, especially in residential areas or whenever there are people or animals around.
- Perfumes, strong body odours and the smell of freshly cut grass seems to be offensive to bees and the cause of most unprovoked attacks.
- After a person spends some time inside the 3 to 4 m radius around a hive, a guard may buzz around the intruder's face as a warning to move off (usually twice). Normally, if the warning has not been heeded by then, the next contact would consist of an outright attack.
- Avoid wearing dark colours around strong hives.

What to do when a swarm attacks

- Please remember to keep your wits about you. Panic doesn't help at all, and I am quite sure that they can also smell fear the same as dogs, or lions for that matter.
- At the very first sting a person should move quickly away from the proximity of the hive, and if possible while trying to remove the sting by lifting it with a finger nail. Putting some saliva on it should help a bit. (When there isn't an actual beehive in the next 10 or so metres, a sting should not cause a major problem besides some allergic reactions).
- Trying to escape by running away through open fields is a no hoper, as African bees may keep the attack up for 2 km and even further on occasion.
- From personal experience, the best is to seek shelter in a dark room (with close doors if possible). If not available, try to dodge around and through bushes and small trees while keeping a good pace and following a general direction. Cars (with closed windows) have literally saved my skin quite a number of times.
- Never jump into a pool trying to escape if there are no reeds or pipes to breathe through. Bees will just hover above the water while waiting for you to come up.
- Applying propolis tincture to stings does help.
- Anti-histamine is recommended.
- An adrenaline injection is a must for very allergic sufferers.
- If an adrenaline injection cannot be immediately administered, the patient should be taken to a clinic with utmost urgency.

Bee venom does have excellent medicinal properties, especially for auto-immune problems. (See "Bee Venom" in "Medicine from the Bees" in www.thehoneybear.co.za)

KAROO HONEY

To understand my great desire in obtaining some rare honeys from the legendry desert and subsequent disappointments, part of a letter to the beekeepers in the same area is shown underneath.

"A short while ago there was a write up in one of your (Beekeeping Association) emails about the different honeys that can be harvested in your part of the world.

Not only was there a most incredible diversity, but I am sure that the quality would also be equally superb.

Yes! It does boggle the mind.

Yes! It does frustrate a Johannesburg beekeeper quite badly by not being able to lay his hands on some of them.

Please guys from the vast expanses of the Southern part of Africa, could you tell me what you do with your honeys?

Is there any way you can stop my somewhat insane rumblings of frustration and find the motivation to send up some buckets of your treasured nectar?"

I have often been asked how I manage to survive in my profession, which so often requires swimming in a sea with predators (crooked suppliers). The adaptation of the following story serves as a good answer.

After some narrow escapes while driving on the "wrong" side of the road in Europe, the following message was sent to my Swiss friends, knowing that it would amuse them.

"There must be a God, or at least a Saint that looks after fools and bad drivers."

Somehow I have the feeling that "bad drivers" could be replaced now with "beekeepers".

...How else to explain the considerations and ethics, both personal and professional of beekeepers that supply me with honeys from faraway, which are impossible for me to harvest?

...The sharks that try the (once off) rip-off or con act (sell damaged honey), their poor souls can rot in hell."

Oh well! Fools luck or an idealistic foolishness?

Viva Don Quixote! (My hero) Viva! But I have to mention that I do my home work.

NEW PRODUCTS

The new batch of **Hazelnut, Honey & Raw cocoa** is absolutely superb. Most probably it has been enhanced by the Raw Honey that it is creamed with this time.

The texture is a little coarser and the taste is richer and creamier.
Contrary to some similar commercial products, there are no sugars*, butters, emulsifiers or preservatives in it.

Hazelnut is rated as the most beneficial nut for heart health, due to the highest levels of cardio protective mono-unsaturated fatty acids and lowest in saturated fats.

- Rated as one of the most nutritious nuts, with significant supply of protein, fibre, vitamin E and B, iron, calcium, magnesium and potassium.

- Contains the highest concentration of folate, which reduces the risk of cancer, heart diseases, Alzheimer's and depression.

Pure Cocoa seed powder has recently been found to contain high levels of antioxidant polyphenols, oligomeric procynanidins and other flavonoids that help boost the immune system and offer significant protection against "bad" cholesterol and heart disease. It is also very nutritious, having a high protein, vitamin and mineral content.

The new batch of **Almond Honey & Nuts** has a fuller nutty flavour, coarser texture and smoother taste, just like the Hazelnuts. The raw honey used is also the same.

Almonds are very tasty and the most nutritious tree-nut around.

- They are a healthy energy supplier while dieting.

- An excellent source of magnesium, manganese and unsaturated fats.

- Good source of fibre, copper, riboflavin and phosphorus, plus protein.

- Great anti-oxidant with high levels of alpha tocopherol Vit. E.

All that this information says is:
Now we can experience the goodness of honey and the energy and health giving properties of the nuts in a most delectable and practical way.

Perhaps to corroborate this statement, Arab warriors food while on campaign consisted basically of nuts and dates and/or honey, and they could survive on it for many months in a perfectly healthy state.

*The body does not treat honey as a sugar, even in diabetics.

HONEY & SINUS

"Ottawa University doctors found in tests that ordinary honey kills bacteria that cause sinus infections, and does it better in most cases than antibiotics. "It's astonishing," researcher Joseph Marson said of bees' unexplained ability to combine the nectar of flowers into a seemingly potent medicine.

The preliminary tests were conducted in laboratory dishes, not in live patients, but included the "superbug" methicillin-resistant Staphylococcus aureus or MRSA, which is highly resistant to antibiotics.

In upcoming human trials, a "honey rinse" would be used to "flush out the goo from sinus cavities," said Marson in an interview with AFP. The researchers have so far tested manuka honey from New Zealand, and sidr honey from Yemen.

The two killed all floating bacteria in liquid, and 63-91 percent of biofilms - microorganisms that sometimes form a protective layer in sinus cavities, urinary tracts, catheters, and heart valves, protecting bacteria from normal drug treatments and often leading to chronic infections.

The most effective antibiotic, rifampin, killed just 18% of the biofilm samples in the tests...

There you have it.

Please pass this to chronic sinus sufferers. It seems that most SA doctors could do with it as well.

BEE POLLEN HIGH IN ANTI-OXIDANTS

Flavonols are the antioxidant property most associated with grapes' dietary benefits. Which of the three foods contain the most quercetin, believed to be the most potent flavonol?

a) red grapes
b) bee pollen
c) apples

The answers: b (bee pollen, 31.78 mg quercetin per 100 mg; apples, 7.37; red grapes, 3.98)

BEES AS SECURITY GUARDS

The following letter was sent by a fellow beekeeper as an explanation of why he couldn't keep any of my hives on his small holding:

"I have 14 hives on my property currently and I don't think that we can carry any more. 7 are deployed as part of security (2 as borehole pump protectors - 3 as galv. sheet protectors on store rooms - 2 as gate guards in the field behind my house). 7 swarms are housed in a fenced-off enclosure." Although I am sure that this particular beekeeper hadn't done any specific queen breeding with hyper defensiveness in mind, his excellent "watch dogs" not only were free lodging, but in actual fact paid "rent" in honey on top.

Nobody would be able to disagree on what a great deal he got, if ever there was a better one.

FEEDBACK

All feedback on these newsletters are welcome.

THANKS

For all the questions, comments and feedback on the newsletters.

NEW HONEYS

The 2008 good honey luck seems to carry on.

Now is the turn of Burkea Africana, or Red Syringa. Exactly like October's Combretum.

After careful checking up, it seems that the last time these two were seen in reasonable quantities was some eight years ago, which coincided with the start of the drier period that finished recently.

The honey is smooth, creamy and medium to light and a bouquet to match.

I would say superb for toast.

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DISCLAIMER

The views expressed in this newsletter are those of the author and not necessarily that of other authorities on the behaviour of bees. They come mostly from my personal experiences and memories, as well as common sense deductions. The only reason for the distribution of these newsletters, as stated on various occasions is: "To Spread the Gospel (and Love) of the Bees" to a wider audience.