# teatures

## Bees are not out to kill

**UNVEILING THE MYTH** OF AFRICANISED PART II JO-ANNE NINA SEWLAL

LAST WEEK we introduced the topic of Africanised bees (Apis mellifera scutellata), a sub-species and cousin of the docile European honey bee. Africanised bees have received a lot of attention and fear of these bees is due to their highly-defensive nature. This includes attacking predators or what they perceive to be a predator by the hundreds and with great intensity. But many of these fears are unfounded. This week's article aims to clear up some of these misconceptions as well as look at how their presence benefits the environment and the bee-keeping community.

So why are people really afraid of Africanised bees? One reason is their predisposition to swarming. Many people have the misconception that swarming is how bees attack. Swarming is in fact the means by which bees



TRINIDAD AND TOBAGO

find a suitable site for their colony. Workers scout for a suitable location, and when one is found, the queen along with 60 percent of the workers leave the colony to take up residence and establish a colony at the new site. The workers that are left behind care for the developing queen who will then lead their colony. So that swarming is actually good for beekeepers (once it can be controlled) as it creates more colonies and increases the honey production of the apiary.

In terms of venom, similarly to European sub-species, once a bee stings you, it dies as its venom gland rips out of its body along with its stinger which embeds it-



Swarming bees are not aggressive as they have no colony to defend.

self into its victim, pumping venom until it is removed. So getting stung by a bee is not a pleasant experience. For persons with allergies, a single sting can indeed be deadly. To a person without allergies numerous stings at once can be fatal, hence the fear of being attacked by a swarm of these insects. But are Africanised honey bees more dangerous than their European cousins? Africanised bees are actually smaller and

contain less venom. However, when disturbed, workers respond faster and in greater numbers, with the unlucky recipient of their attention receiving ten times more stings than from a colony of European honey bees. This means that often the recipient would go into anaphylactic shock.

However, the term "killer bees" is misleading since just as with European bees, Africanised honey bees are not out to kill but defend their colonies. Swarming bees are not aggressive as they have no colony to defend. They are also not physically able to sting since they have engorged themselves with honey in order to make the trip and found the new colony.

What then does the arrival of Africanised bees mean to the beekeeping industry in this country? Africanised bees were first detected in Trinidad in 1979 and their aggressive nature caused more than half of the beekeepers at the time to quit, reducing the number from 350 to around 200.

So how have beekeepers managed to "tame" the Africanised bees? Simple, they have not. Beekeepers have learnt to adapt. One such adaptation is working according to nature's schedule rather than their own. They also have to pay more attention to the flowering schedule of the plants in the vicinity of their apiary.

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## African bees have less venom

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Another precaution that beekeepers have taken to deal with Africanised bees is to wear more protective gear. They have also had to learn to manage smaller colonies. Africanised bees also have to be more closely monitored or managed because of their propensity to swarm.

The bee-keeping industry in this country has not only survived their arrival, it has improved. This is because Africanised honey bees produce more honey compared to the European sub-species. But the supply is not yet close to meeting the current and potential local demand. It has also influenced the quality of the honey, in that our local honey is considered multifloral, as the taste

reflects the mixture of vegetation that the bees obtain nectar from. This ability also gives beekeepers some freedom in placing their hives in locations that they could not put European bees, mainly due to their foraging ability. The bees are also stronger, due to their extensive grooming which has increased their resistance to pests and diseases.

The resurgence in bee-keeping in the country may give the impression that the bees are becoming less "Africanised", in other words more docile. However, the opposite is true, since the queens on their maiden flight are breeding with Africanised drones

The impression that the bees are more docile has nothing to do with nature and more to do with selective breeding

programmes carried out by the government and large scale commercial bee-keepers. Where more docile colonies are selected for and bred with the aim of the apiaries having bees that have a higher productivity and less defensive nature.

Curiously, although Africanised bees were detected in Trinidad since 1979, none have been found on Tobago despite its close proximity to Trinidad. But as one can see, when they eventually reach the island, they can be managed and should not be viewed as a

Despite this sub-species' reputation as a successful invasive species, it goes to show the adaptable nature of our environment and humans in turning what could have been

**NEWSDAY** 

SECTION A

an environmental disaster into a success story. It demonstrates that many misconceptions are based on lack of knowledge and we should not be afraid of Africanised honey bees but adapt to their defensive nature.

For more info on our natural

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environment, contact the Trinidad and Tobago Field Naturalists' Club at admin@ttfnc. org or visit our website at www. ttfnc.org and our Facebook or YouTube pages.

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