

FEATURES

Mosquitoes: good, bad or both?

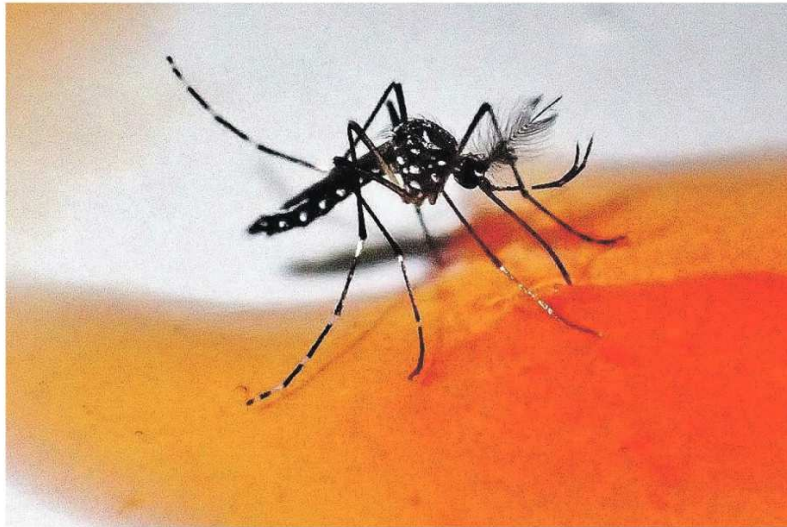
RENOIR AUGUSTE

YOU'RE LYING comfortably in your bed at night and then all of a sudden, you hear a buzzing sound. Another night, you may be watching television with your family, and you feel your ankle itching. One day you are taking a stroll through the swamp to bird-watch and you feel a sting on your neck. There is a good chance that all these scenarios were the result of a mosquito, if you live here in Trinidad and Tobago. Though it is easy to imagine that the world would be a better place without mosquitoes, is there any merit to the existence of these tiny insects?

There are over 3,000 species of mosquitoes across the world, which is actually modest, compared to other groups of insects. Most mosquitoes are ectoparasites, which means they feed on the outside of their hosts. They use their proboscis or mouthparts to pierce the skin of their prey and consume blood, thereby acting as a vector; transmitting diseases from one organism to another.

It is mainly the female that does this as the nutrients in blood are needed to help produce eggs. Males typically feed on nectar and plant juices. Once breeding occurs, the life cycle of a mosquito goes through four stages: egg, larva, pupa and adult. In most cases stagnant water is needed as the medium for laying eggs and for the larva and pupa to live.

Mosquitoes are responsible



Only a tiny fraction of mosquitoes like this *Aedes aegypti* are vectors of diseases. PHOTO BY STEPHANIE WARREN-GITTENS.

for over a million human deaths globally, and serious illness in millions more. Species within the genus *Aedes*, for example, the stripy-legged *Aedes aegypti*, are regarded as the main vectors for transmitting diseases in the Caribbean. Some of the diseases they transmit include dengue, yellow fever, chikungunya, and Zika.

Perhaps by now most people have already been convinced that mosquitoes offer nothing good, but this may not completely be the case. Mosquitoes are important sources of food for various animals. Bats and birds feed on mosquito adults, whereas fishes and frogs may feed on the larva. Some mosquitoes also act as pol-



linators, feeding on nectar from various plants. Mosquitoes thus form an important link in food webs and life cycles, and their absence would have knock-on effects on animal and plants that we do fully appreciate having around.

proving human quality of life.

Though fondness for mosquitoes may be small, it is important to highlight that it is actually humans that help their dispersal. Studies have shown that female *Aedes aegypti* mosquitoes may spend their lifetime within a narrow range and will fly on average only 400m from around the urban homes where they hatched. As such, it is people that help spread mosquitoes and not the mosquitoes themselves – so some responsibility for their distribution lies with us. In line with this, most cases of dengue are caused by mosquitoes breeding in the victim's backyard or in that of their neighbour – rather than from further afield; the same is likely to be true for the other diseases.

What then can be done, or what should we do? It has been well publicised that people should keep their surroundings clean and ensure that pools of stagnant water are not exposed for mosquitoes to breed. Some examples of aquatic habitats that would be suitable for mosquitoes to lay eggs around our homes include discarded items such as tyres, damaged appliances and paint cans, buckets, barrels, ornamental containers, and even animal drinking pans. These should be removed, or emptied at least every four days. People should also take measures to ensure that when transporting goods, containers that may later carry water are thoroughly checked for mosquito eggs.

● MOSQUITOS continues on Page 7B

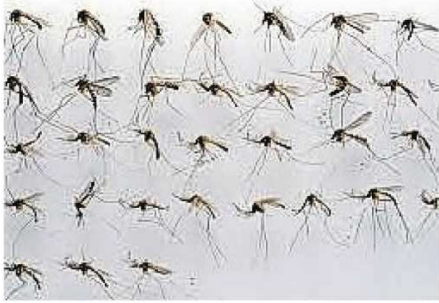
Zika prevention is better than cure

The Zika Virus (ZIKV) is transmitted by the *Aedes aegypti* mosquito. Common symptoms are mild fever and exanthema (skin rash), usually accompanied by conjunctivitis and muscle or joint pain.

Choose Protox to protect yourself and your loved ones and lessen your chances of being exposed to the Zika virus.



FEATURES



There are over three thousand species of mosquitoes across the world and mosquitoes are responsible for over a million human deaths globally.

Don't attack all mosquitoes

• MOSQUITOS from Page 3B

If we reduce the ideal settings for mosquitoes around our homes and be more vigilant with containers we are travelling with, it may help curb their population and dispersal.

Here in Trinidad and Tobago, we have another weapon up our sleeve – guppies! Did you know that over the last century, these tiny “drainfish” from Trinidad have been introduced to rivers and water containers as a mosquito defence tool in places including India, Australia and parts of Africa?

In India, for example, it is commonplace to add Trinidadian guppies to water troughs in malarial regions, as guppies survive extremely well in small tanks and readily consume mosquito larvae. It can be extremely effective, although outside Trinidad, this strategy carries the risk of introducing an exotic fish (the guppy) to a foreign ecosystem, potentially causing negative effects.

Here, in the native home of the guppy, we have no such worries - and an abundance of these fish in our drains and ditches could be rehomed in our outdoor water containers. Indeed, in El Salvador, one of the countries worst affected by the current Zika outbreak, they are already employing a different species, the sambo fish, in this way.

However, even if we en-

acted all of these strategies, it is very difficult to fully control or eliminate *Aedes aegypti* mosquitoes, due to their impressive resilience and adaptation to changes in the environment.

For example, the eggs are capable of withstanding long periods of drought and some have even been known to use septic tanks while undergoing development as eggs into adults. It is thus imperative that entomological studies are conducted before and during vector control measures.

It is also necessary that humans adapt as well – for example, by wearing long sleeves at dusk and dawn and using repellent. Finally, we urge that control measures focus on the target species, and in urban areas; not all species of mosquitoes need to be attacked as most are harmless – and some are even useful!

For more info on our natural 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. The club's next monthly meeting will be held on March 10, 2016 at St Mary's College, Port-of-Spain. Lecture: "Amphibians of the Aripo Savanna" by Renoir Auguste.

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Anne and Leroy at St. Mary's Children's Home, Tacarigua.

Couple donates funds to St Mary's Home

ANGELA PIDDUCK

FOR THE seventh consecutive year, Trinidadians Dr Leroy Lashley and his wife Anne, have donated funds raised from their annual Christmas party, which took place on December 11, 2015, in Founders Hall at the Church of the Ascension in Miami, Florida, to the St Mary's Children's Home, Tacarigua. The couple, who live in Florida, and was in Trinidad for the recent Carnival celebrations, presented a cheque on Ash Wednesday to Theresa Greenway, deputy manager of the home.

When asked to give one reason why she and the rest of the family continue to organise the annual Christmas party, started in December 1994 to celebrate family and life, after Leroy was treated for colon cancer in December 1993, Anne quoted Lydia Maria Child saying, "An effort made for the happiness of others, lifts us above ourselves." The party has continued annually and in December 2008, on advice from now retired Bishop Clive Abdullah and Leroy's sister Lystra Lashley, it was decided to donate the funds to the Home.

Caribbean nationals from across South Florida attended the event, some American citizens and a few dignitaries. One guest commented: "I went to a party given by the

Lashley Family and Friends and I had a wonderful time. Leroy, Anne and Leroy Jr and their friends outdid themselves."

In keeping with their desire to give back to the community and country, the Lashley Family and Friends for the fourth year gave an award to an individual who does outstanding work in the Caribbean community in South Florida. The recipient was Trinidadian, Jerry Nagee, who was the editor and publisher of *The Caribbean Contact*. Nagee, a retired school teacher, is a political activist and a disseminator of information that is pertinent and relevant to the Caribbean community, especially the Trinidadian community. Nagee is also the daughter of the late TT journalist John Alleyne. The presentation of a plaque and a proclamation were made by Florida State Representative, Kionne McGhee, who attends the party annually.

Providing entertainment were Trinidad's own Charmaine Forde and her brother, Carlos. Among those attending were Acting Consul General of TT, Gavin Pettier, Erica Williams-CConnell, daughter of the late Dr Eric Williams, Gail Thompson, Deputy Consul General of Barbados in Florida and The Rev Canon Winston Joseph and his wife, Moilan. Canon Joe gave both the invocation and the benediction, is currently Rector of St Patrick's Episcopal Church in West Palm Beach, South Florida.