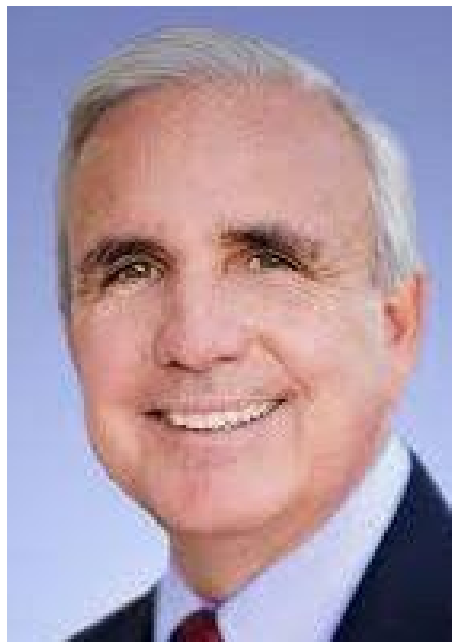


https://www.keysnews.com/flkeysfreepress/news/county/mosquito-anxiety-prompts-query-from-congressman/article_e0527388-7ed3-11eb-82ea-b760cc89fd90.html

FEATURED

Mosquito anxiety prompts query from congressman

By THERESA JAVA Free Press Staff
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Gimenez





Key Largo resident Kim Sikora has been distributing anti-genetically modified mosquito signs to homeowners who request them.

THERESA JAVA/Free Press

KEY LARGO — Anxiety among some residents over the pending release of hundreds of millions of genetically modified mosquitoes next month in undisclosed locations throughout the Florida Keys has prompted Congressman Carlos Gimenez to seek answers from the U.S. Environmental Protection Agency.

The Florida Keys Mosquito Control District and Oxitec, a British-based biotech company, plan to release genetically modified *Aedes aegypti* mosquitoes in selected neighborhoods between mile markers 10 and 93 as a way to control the wild population of the disease-carrying pest. This is the first experiment of its kind in the U.S.

Oxitec has conducted similar releases in the Caribbean and South America, and contends that it is safe and effective.

Residents opposed to the release say there's no way for them to opt out of the mosquito experiment, which was approved by the district and state and received an Experimental Use Permit, or EUP, from the EPA. A non-binding referendum held in Monroe County in 2016 resulted in 58% of the voters agreeing to a genetically modified mosquito release.

“We know that *Aedes aegypti* can travel up to a quarter mile,” said Barry Wray, executive director of the Florida Keys Environmental Coalition. “So if I don't want to be a part of this experiment, I don't really have a say.”

“This makes the hairs on the back of my neck stand up,” Key Largo resident Kim Sikora said. “Once it's done, it's done and there's no going back. There's no way for us to opt out. We, as consumers, have the choice to buy non-modified foods, but we don't get a say in mosquitoes.”

In a letter dated Feb. 17, Gimenez, R-Miami, who represents the Keys, wrote a letter to the EPA's acting administrator, Jane Nashida, requesting information.



“Previously, as mayor of Miami-Dade County, Florida I was responsible for trying to mitigate the spread of the Zika virus by mosquitos, so I understand the importance of these efforts,” the letter states. “With that being said, I believe the concerns of my constituents living in the community where this EUP will be used deserve mine, and the EPA’s consideration. I am requesting that you provide my office with any available independent corroboration:

“1) Showing that no genetically modified female mosquitos will be released under this EUP.

“2) What, if any, adverse impact these mosquitos might have on the ecosystem throughout the Florida Keys, and specifically threatened or endangered species.

“3) What adverse impact this might have on the food chain through ingestion by local popular consumable marine life.”

Requests for comment by the Free Press from Gimenez’s office were not answered before press time.

Sikora said she’s concerned about unintended consequences of releasing genetically modified male mosquitoes.

“There are just so many things we don’t know that frightens me,” she said.

Sikora, who has been distributing anti-genetically modified mosquito signs to homeowners throughout the Upper Keys who request them, said there’s been an increase in demand.

Her frustration after attending a series of FKMCD and Oxitec’s public educational webinars has only mounted.



“They cherry pick the questions to answer,” she contends. “I learned that the EUP determines how many homeowners need to be notified. How many will that be?”

Oxitec’s “friendly OX5034 *Aedes aegypti* mosquito” is marked with red fluorescence, according to Oxitec. The active mosquito-control ingredient is a tetracycline-repressible transactivator protein in males that inhibits the survival of female offspring when the males mate with wild female mosquitoes.

Male offspring will survive to become fully functional adults with the same genetic modification for a few generations and breed out females.

Oxitec says it will only release male mosquitoes, which do not bite.

The EPA said in a press release that it anticipates no adverse effects to animals such as bats and fish in the environment.

Wray, however, is demanding an independent scientific study of Oxitec’s mosquito.

“No independent scientist has reviewed Oxitec’s material. They are editing the germ line [sex cells] and hereditary traits of a species. They are creating off-target mutations,” Wray contends. “The consequences may not be immediately obvious. It may never be obvious. It took 32 years to correlate septic systems with degraded nearshore water quality.”



Oxitec is required to monitor and sample the mosquito population weekly in the treatment areas to determine how well the product works for mosquito control and to confirm that the modified genetic traits disappear from the male *Aedes aegypti* mosquito population over time, according to the EPA.

The EPA has also maintained the right to cancel the EUP at any point during the 24-month test period if unforeseen outcomes occur.

“Oxitec is calling it a project, when in fact it is an experiment,” said resident Mara Daley who opposes the release. “I’d like to know where the targeted neighborhoods are.”

With more than 40 species of mosquitoes found in the Keys, the mosquito district is mostly concerned with the *Aedes aegypti*, which was the vector of 100 cases of dengue fever in Key West in 2009-10 and 67 cases in Key Largo in 2020. It is also known to carry Zika, chikungunya, yellow fever and other diseases.

A genetic analysis of mosquitoes in Brazil following an Oxitec field experiment from 2013-15 revealed that the engineered mosquitoes stock bred with wild mosquitoes and created viable, hybrid insects, according to *The Scientist Magazine*.

Last year, the company redesigned its technology and developed an updated version of the mosquito. The second generation allows for greater efficiencies in rearing and better suppression, according to Oxitec.

“They [the genetically modified mosquitoes] will not persist long after release,” according to Nathan Rose, Oxitec’s head of regulatory affairs.

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