

Eco-Genocide and the Genetically Engineered Mosquito Army

[Eco-Genocide and the Genetically Engineered Mosquito Army](#)

by [Whitney Webb](#) & [Raul Diego](#), [The Last American Vagabond](#)
June 25, 2020

The enemies of life are breeding their own agents of ecological destruction aided and abetted by an incompetent EPA and a rubber-stamp government in Florida, which just gave unanimous approval for the release of hundreds of millions of genetically modified mosquitoes by a company with deep ties to bill gates, the us military, and big ag.

In a move sure to stun future generations – should we survive long enough to have any – seven Florida government agencies, including those charged with protecting its health, agriculture and environment, made a complete mockery of the trust afforded to them by the people of the state to oversee these vital matters and [may have just pulled the trigger](#) on a catastrophic environmental collapse.

The unanimous approval to allow the deployment starting this summer of over [1.2 billion genetically modified mosquitoes](#) in Key Haven, Monroe County, Florida over a period of two years could very well decimate a substantial part of Florida's natural flora and fauna, taking dozens of endangered species to the brink of extinction and irrevocably changing the habitat of the thousands of local birds, plants, amphibians and insects that make up Florida's ecology.

The go-ahead comes on the heels of a decision by Trump's EPA to green-light previously thwarted plans to release these airborne frankensteins in our environment without the slightest regard for the possible consequences. Ignoring the agency's own lukewarm assessments admitting some of the dangers, the EPA nonetheless violated mandated requirements of the Endangered Species Act (ESA) to approve the [first-ever](#) GE mosquito experiment in the United States.

Despite the EPA's criminal negligence in failing to follow mandated procedures, it was ultimately left to authorities in Florida to give their consent for this plan, which they gave in spades despite overwhelming opposition. A public forum held on this issue returned an [incontrovertible verdict](#) of 31,174 comments opposing the release and only 56 supporting it. This, however, seemed not to sway a single state agency when it came time to allow the deliberate invasion of a new, man-made mosquito into what is already one of the nation's most imperiled ecosystems.

Frankenbite

The proposition had been made and withdrawn twice before. Once in 2016, when Oxitec Ltd. applied for an investigational new animal drug (INAD) with the FDA for its GE *Aedes aegypti* mosquito strain OX513A, a.k.a. "Friendly *Aedes aegypti*," the first of three strains of the so-called "Yellow Fever Mosquito." The UK-based company claimed that the mosquito release was "unlikely to impact the physical, biological, and human environment" and "that no cumulative impacts are anticipated." The application was withdrawn. The same fate befell their second application two years later when jurisdiction over the application had been switched over to the EPA.

Opposition from groups like the Center for Food Safety may only have been partially responsible for the application withdrawals, as a third one was submitted soon after the last

one with a new strain denominated GE *Aedes aegypti* OX5034, which is differentiated from the prior strain by the characteristic that it only kills the female GE mosquitoes leaving the GE males to survive for multiple generations, according to Oxitec.

The stated purpose of the program is to “evaluate the efficacy of Oxitec’s alternative second-generation OX5034 GE mosquitoes as a tool for suppression of wild *Aedes aegypti* mosquito populations.” But, serious questions surrounding its effectiveness have already proliferated after the results of Oxitec’s mosquito experiments in other countries.

In a 2015 press release, Oxitec claimed its trials in Brazil, Panama, Grand Cayman and Malaysia had resulted in a “90% reduction of the *Aedes aegypti* pest population.” The same claim was made in a 2016 U.S. Congressional Hearing of the Science, Space and Technology Committee. But in fact, efficacy trials in Malaysia were abandoned and “[major problems](#)” were reported over how Oxitec interprets its data. In addition, no direct evidence has ever been produced to prove that the Oxitec GE mosquitoes caused a fall in the population of disease-carrying mosquitoes in any of these countries. In the Cayman Islands, female mosquito populations [went up rather than down](#) – a fact discovered only after Oxitec’s results were obtained through FOIA requests.

The same year of Oxitec’s first application for release in the U.S., the company carried out its first large-scale trials in Piracicaba, Brazil and reported an “81% suppression of wild *Aedes aegypti*” in the second year of the trial. But, the same problems and fudged data that plagued the Grand Cayman reports were also identified and discredited many of the company’s claims of success. Oxitec’s claims for its earlier trials in Panama made claims similar to all others, but also failed to convince experts.

Target Florida



Florida has been in Oxitec's sights [since 2011](#) when the company approached the Florida Keys Mosquito Control District after an outbreak of dengue fever a year earlier. Resistance to the idea of releasing genetically engineered insects into the wild was just as strong then. Nevertheless, Oxitec was touting false trial results in other countries to get the right government agencies involved. But, it didn't prosper at that time.

Fast-forward five years and Zika makes its first appearance, a new mosquito-borne disease that spread rapidly in Miami-Dade County, in particular, and coincided with Oxitec's first federal-level application. Opposition, however, remained strong and Oxitec would have to wait for an administration that was willing to overlook troublesome scientific concerns and regulations to give them a chance. Trump and his [Koch-led EPA transition team](#) provided just the right atmosphere for the UK biotech to finally achieve its horrific dreams.

Among the most immediate effects of this summer's scheduled

release of Oxitec's GE mosquitoes will be a huge increase in the use of toxic, traditional mosquito control methods like adulticides and larvicides, which will place undue strain on the environment. But, the greatest danger is faced by the vast members of Florida's ecosystem from dozens of species of protected birds, reptiles, mammals and plants.

The Cape Sable seaside sparrow is a non-migratory bird whose native Florida habitat has been decimated by conversion of land to agricultural uses. The bird forages for insects and, like many other bird and animal species of the state, are opportunistic in their feeding habits, meaning that a large influx of new insects will most definitely end up in their digestive systems.

Another potential consequence is what is called "[competitive displacement](#)," which occurs when a large influx of a new species drives an existing one to population levels low enough that another invasive species, like the aforementioned dengue-carrying mosquito *Aedes albopictus* (Asian Tiger) or the West Nile virus-carrying mosquito *Aedes albopictus*, can proliferate in the region and pose even greater threats to both human and animal health.

To make matters worse, this hurricane season is [projected to be very active](#), considerably increasing the probability that these GE mosquitoes will end up threatening many other ecosystems besides Florida's.

To all these concerns and more, Florida lawmakers simply thumbed their noses at the people of their state and the environment; choosing to go along with the irresponsible dictates of an EPA on a mission to self-destruct and the unsubstantiated claims of a biotechnology firm with old ties to the USDA dating back to 2009 when another of their GE insects – [a modified pink bollworm](#) released (and later discontinued) as part of the agency's plant pest control program, DARPA's "gene drive" technology research and a CEO

with a belligerent past.

Oxitec's Origins and the Man in the Trenches

Oxitec was first founded in 2002 in the United Kingdom as Oxford Insect Technologies, a vehicle for commercializing technology that had been developed by Oxford University scientists. It remained relatively obscure until it was acquired for \$160 million by the U.S.-based biotechnology firm Precigen (then called Intrexon) in 2015, a firm that “[applies engineering](#) to biological systems to enable DNA-based control over the function and output of living cells.”

Notably, Precigen has since turned its focus entirely to human gene-editing using a patented approach called “[Better DNA](#)”, while Oxitec was sold to Third Security, a venture capital firm headed by Precigen’s [former executive chairman](#), earlier this year.

Shortly after its acquisition by Precigen, Grey Frandsen became Oxitec’s CEO, an alumnus of the U.S. State Department who worked closely in connecting non-governmental organizations (NGOs) and the military, as well as developing the State Department’s “post-conflict response” policy in a variety of conflict zones abroad.

Frandsen’s career in this orbit began during the NATO invasion of the Balkans in the late 1990s when he went on a “[humanitarian relief trip](#)” during the war. That trip spurred him to co-found [PICnet](#), a technology consulting firm for NGOs, and he was quickly made the [director](#) of post-conflict “reconstruction” efforts in the Balkans for Relief International, [a close partner](#) of USAID, the World Bank, Google, the UN and the State Department.

He then joined the State Department [a year after](#) founding PICnet as Special Assistant to the Assistant Secretary and Principal Deputy Assistant Secretary in the Bureau of Political-Military Affairs. At the State Department he first

focused on “the development of post-conflict response policy, continuity of operations planning, contingency planning coordination, and general policy coordination.”

While at the State Department, Frandsen would concurrently serve as a fellow at the International Crisis Group, a NGO initially created in 1995 to “serve as the world’s eyes and ears for impending conflicts.” Immediately after it was created, ICG was focused [almost exclusively](#) on the Balkans region in the immediate lead-up to the NATO-led invasion of the former Yugoslavia. During this period, ICG was principally involved in manufacturing international consent for a “humanitarian” regime change operation and the balkanization of the region. ICG has since repeated that same playbook in Sudan (via the Darfur conflict) and (unsuccessfully) in Syria.

Upon concluding his fellowship at ICG, Frandsen became [an advisor](#) to the U.S. Navy on Civilian-Military Affairs in Conflict and Non-Permissive Environments, in addition to his continued work at the State Department. In 2002, Frandsen would author the first “[Guide to Non-governmental Organizations for the Military](#),” and would [subsequently become](#) the special assistant to the State Department’s Coordinator for Reconstruction and Stabilization, specifically on matters pertaining to NGO-military relations, a post he held until the end of the George W. Bush administration.

Frandsen’s jump into the “life sciences” industry would also result from his ties to the public sector, as he was appointed president of a company called Olfactor Laboratories that develops “novel technologies and systems for combatting mosquitoes that transmit disease” based on research financed by the Bill and Melinda Gates Foundation and the U.S. government’s National Institutes of Health (NIH).

As president of Olfactor, Frandsen [signed agreements](#) with the U.S. military’s Walter Reed Army Institute of Research (WRAIR) to employ the company’s technology at U.S. military bases

around the world. The WRAIR is a subordinate of the U.S. Army Medical Research and Development Command (USAMRDC), which oversees the U.S.' controversial "biodefense" lab in Fort Detrick, Maryland that [once conducted](#) a series of covert biowarfare tests on U.S. civilians that sought to examine the feasibility of mosquitoes as vectors for bioweapons.

Wartime CEO



Upon leaving Olfactor, Frandsen immediately [became an advisor](#) to the Centers for Disease Control and Prevention (CDC) to "combat Zika and dengue in Puerto Rico" and subsequently replaced Hyden Parry as CEO of Oxitec. Soon after joining Oxitec in 2017, Frandsen began courting high-powered investors for the company's gene drive or "genetic extinction" technologies using insect vectors, ultimately securing the support of the Bill and Melinda Gates Foundation in 2018.

That year, the Gates Foundation provided Oxitec with [a \\$4.1 million grant](#) (later [expanded to \\$5.8 million](#)) to engineer mosquitoes of the *Anopheles* genus endemic to regions of the Americas, eastern Africa and Southern Asia with the goal of "dramatically reducing" the wild population of mosquitoes, officially as a means of reducing the incidence of malaria.

In addition to Oxitec's genetically modified mosquitoes, Frandsen has also overseen the company's development of a slew of other genetically modified insects for use in agriculture, including olive flies, Mediterranean fruit flies, soybean loopers, armyworms and diamondback moths. This more recent addition to Oxitec's product portfolio would allow the introduction of genetically-modified insect to a wider range of geographical regions, including [Australia](#) and [cooler regions of the United States](#), where Oxitec's "anti-malaria" mosquitoes would not be eligible for use. It is worth noting that several current and former Oxitec executives, including its former CEO Hadyn Parry, were [previously employees](#) of the agrochemical company Syngenta, which also has interests in genetically-modified insects for agricultural purposes.

In addition to expanding the company's product portfolio, Frandsen has also taken charge of "charities" that serve to lobby governments in Africa to adopt the very technologies developed and patented by Oxitec. Frandsen serves as [chairman of the board](#) of Pilgrim Africa, a Seattle-based NGO partnered with the [former lead investor of Olfactor Laboratories](#) (ieCrowd) and backed by [the Gates Foundation](#) as well as [USAID](#). Pilgrim Africa promotes [the eradication of malaria](#) by "[dramatically reducing](#)" the mosquito population through unspecified "technologies" and the use of genetically modified crop pests (such as those produced by Oxitec) as a form of [integrated pest management in agriculture](#). Pilgrim Africa focuses much of its attention and "services" on the area inhabited by [more than 1.5 million refugees](#) in conflict-ridden Northern Uganda and is [directly partnered](#) with Uganda's Health Ministry. In other words, Frandsen is using his decades-long expertise in using NGOs to exploit conflict zones for the U.S. military to instead benefit the company he currently heads and its "philanthropic" partners.

Weaponizing Life

Given Frandsen's extensive background in the murky nexus

between the military, “humanitarian” NGOs and “diplomacy” in conflict zones, some may find his foray into the realm of biotechnology odd. However, Frandsen’s approach towards biotechnology, specifically Oxitec’s “gene drive” technology, is much in keeping with the steady militarization of that industry, thanks to the work of the Pentagon’s Defense Advanced Research Projects Agency (DARPA) and [its biotechnology office](#) as well as the [growth of a “revolving door”](#) between the Pentagon and the biotechnology/pharmaceutical industries in recent decades.

Frandsen’s “conflict zone” mentality can be clearly seen in his use of militaristic rhetoric regarding how Oxitec’s genetically modified mosquitoes can be used to fight disease. For instance, during the Zika virus scare, Frandsen argued in an Op-Ed [in Reuters](#) that “we need to fight Zika the way governments fight terror,” stating that “the same sort of well-crafted U.S. government-led strategy that was designed to combat transnational terrorism is needed to blunt this deadly mosquito-transmitted illness.”

Frandsen’s militaristic rhetoric with respect to the “life sciences” and big push for Oxitec to enter the public health and agribusiness sectors mirror the pivot made by the U.S. military, specifically DARPA, in recent years. Indeed, though Oxitec is the best-known private sector vehicle for “gene drive” technologies, DARPA is actually among the top funders of gene drive technologies worldwide, [having poured \\$100 million](#) into the research of the technology by the end of 2017.

DARPA’s considerable funding of “gene drive” research was uncovered via a Freedom of Information Act request filed by the ETC group, an agro-ecological advocacy group. “*Gene drives are a powerful and dangerous new technology and potential biological weapons could have disastrous impacts on peace, food security and the environment, especially if misused,*” Jim Thomas, co-director of ETC Group [said at the time](#). “*The fact*

that gene drive development is now being primarily funded and structured by the US military raises alarming questions about this entire field."

In addition, DARPA has also been pouring money into the use of genetically-modified insects for crop "defense" through its controversial "Insect Allies" program. That program, announced in 2016, utilizes controversial gene-editing techniques like CRISPR to [genetically modify insects](#) so that they carry a contagious virus that then infects plants (or whatever organism on which they feed). The insertion of the virus into the target organism, e.g. a particular crop, then imposes genetic changes onto that organism, a process known as "horizontal genetic alteration."

Though DARPA has long claimed that the program is merely "defensive" in nature, [independent scientists](#) alleged in the prestigious journal *Science* that the program is actually a bioweapons program. It is also worth mentioning that DARPA's Insect Allies program was announced the same year that Oxitec first applied to have its genetically-modified mosquitoes released in Florida.

Also noteworthy is DARPA's funding of "[Target Malaria](#)," which describes itself as "a not-for-profit research consortium that aims to develop and share new, cost-effective and sustainable genetic technologies to modify mosquitoes and reduce malaria transmission" by releasing genetically modified mosquitoes throughout Africa. Notably, the genetically modified mosquitoes being developed for "Target Malaria" are [being created at the Imperial College – London](#), the very same institution that has received much of DARPA's "gene drive" research funds in recent years.

In addition, Target Malaria is partnered with Uganda's Ministry of Health (much like Frandsen's Pilgrim Africa) and is mostly funded by the Bill and Melinda Gates Foundation as well as Open Philanthropy, a fund backed by Facebook co-

founder Dustin Moskovitz. Open Philanthropy's involvement is notable as they are also [a major funder](#) of the "biodefense" think tank [first created by](#) HHS' Assistant Secretary of Preparedness and Response Robert Kadlec as well as of [the Johns Hopkins Center for Health Security](#), which [has deep ties](#) to the 2001 biowarfare exercise Dark Winter as well as last year's Event 201.

With Frandsen's ties to the U.S. military, the State Department and covert regime change networks of both the public and non-profit sectors, it is worth considering that the implementation of Oxitec's gene drive technology for a variety of insects serves as a private sector vehicle for the propagation of this "weaponization" of life that has been a focus of the military and a cadre of political operatives and "philanthropists" in recent decades.

While weaponizing crop pests and insect borne disease vectors has its military applications, it has also been viewed for decades by the establishment as a means of subduing populations, not just in conflict zones – where Frandsen's expertise lies – but on a much broader and global scale. For instance, former Secretary of State Henry Kissinger is well-known for having said that "who controls the food supply controls the people" and [for calling](#) overseas food aid an "instrument of national power." This mentality still reigns in Washington, yet is now empowered with a mix of high-powered gene-editing technologies that have the ability to drastically alter the very building blocks of life in whatever ways that suit their agenda, whether in agricultural ecosystems or natural ones.

Perhaps even more alarming, however, is the fact that many of the most prominent funders and promoters of insect "gene drive" technologies – DARPA and Bill Gates – are also [the most ardent backers](#) of the mRNA and DNA vaccine candidates for coronavirus as well as coronavirus "treatments" that [directly edit human genes in vivo](#). Given that Oxitec's longtime owner,

Precigen, has become laser focused on gene-editing technologies for use in humans, as opposed to insects, it increasingly seems that the use of these experimental and untested technologies are intended to be much more far-reaching than many realize.

[Connect with The Last American Vagabond](#)