The World Mosquito Program’s self-sustaining method uses safe, natural bacteria called *Wolbachia* to reduce the ability of mosquitoes to transmit viruses between people.

With strong community support and government approval, we have been working in dengue-prone areas across northern and far northern Queensland since 2011, including large parts of the Cairns and Townsville regions. The cornerstone of our approach is community engagement, with tens of thousands of Queenslanders supporting our projects.

After eight years working in northern Queensland communities, long-term monitoring shows that *Wolbachia* has become self-sustaining at high levels. In areas where high levels of *Wolbachia* are present, there has been no evidence of local dengue transmission.

We are continuing to monitor *Wolbachia* levels in the local mosquito populations across Townsville, Charters Towers, Douglas Shire, Cairns and the Cassowary Coast.

Our dedicated team is working hard to monitor and support the projects in northern Australia from our Oceania hub.

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**AUSTRALIA**

March 2020

**7**

project sites

**299.41 km²**

size of the project

**312,183**

target population

**PUBLIC ACCEPTANCE**

measured by survey

85% Cairns
90% Cassowary Coast
91% Douglas Shire
93% Charters Towers
92% Townsville

**90**

release areas

1. **Project start**
   - 2009
2. **First releases**
   - from 2011
3. **Community engagement**
   - 2010
4. **Post-release monitoring**
   - Ongoing

**MOSQUITO- BORNE DISEASE BURDEN IN AUSTRALIA**

Research in Australia is helping us to refine our approach and adapt it for use internationally. Our project in Townsville was the first to show that *Wolbachia* could be deployed at a city-wide scale through community mosquito releases, with no local dengue transmission after four rainy seasons.
Far North Queensland is now essentially a dengue-free area for the first time in well over 100 years.

“It’s made a very big difference in this area,” says Ruben. “I know there haven’t been any dengue fever reports in I think the last 5 years, so that’s pretty crazy. Cairns without dengue means it’s a safe place – people are not getting sick from dengue fever and they’re not going to be scared about visiting.”

Cairns students Charlotte and Ruben are proud of the role they played in the World Mosquito Program’s Wolbachia-carrying mosquito releases. At first, they were curious to see how and why the program works and the science behind it. Then they both decided to get involved when they realised what this meant for anyone who had experienced dengue fever.

“We brought home a box from school and placed it in our backyard and then we filled it up with water,” Charlotte explains. “When the adult Wolbachia mosquitoes emerged, they flew away. I checked it and there were larvae and the next time I checked it they were gone.”

Through the WMP’s Wolbachia Warriors program, students find out about the safe and natural Wolbachia method, make their own observations and host mosquito release containers at home.

Parents, teachers and children can participate in citizen science and feel like they are helping their communities be happier and healthier.