

Brown widow spider reported for the first time in Tahiti

August 25 2015

Tahiti is a popular tourist destination, but one unwanted visitor has decided to make its home there: the brown widow spider (*Latrodectus geometricus*). A paper published in the *Journal of Medical Entomology* has reported the discovery of the spider for the first time on Tahiti and also on four of the Cook Islands.

The brown widow is a known invasive species. It has been found in South America, Central America, North America, the Caribbean islands, and a host of Pacific islands. It was first found in French Polynesia in 2006, when it was discovered on the island of Moorea. It is believed that the spider makes its way from island to island by hitchhiking in shipping containers and underneath vehicles on inter-island ferry traffic.

As the name implies, the brown widow is a relative of the infamous [black widow](#) spiders (*Latrodectus mactans* and *Latrodectus hesperus*). However, the bite of the brown widow is much less toxic. Symptoms are usually limited to pain upon being bitten and redness afterwards. Because of this, the authors of the paper are quick to caution against overreacting to the spider's presence.

"Brown widows rarely bite people," said Rick Vetter, a co-author of the paper. "But, because there were no medically important spiders in Tahiti before the brown widow showed up, and because this new colonizer is there and has 'widow' as part of its name, people are going to overreact. What they need to be aware of is that the brown widow is not that big of a deal. It is important to know that the spider is now established in

French Polynesia and the Cook Islands, but it is not cause for alarm."

Jérôme Marie, the first author on the paper, elaborates on this sentiment, writing, "The spider is shy, which means not as aggressive as the black widow. The brown widow's first reaction is to avoid contact with people. When disturbed, the [spider](#) makes a quick retreat into its web chamber or fakes death by falling and clamping its legs to its side."

During their study, the researchers also discovered a species on the island that may help control the brown widow population naturally: the parasitoid wasp known as *Philolema latroecti*. This wasp has been used for biological control of the southern black widow in Hawaii and could become a significant limiting factor of the brown widow population in French Polynesia. In fact, Marie found it in 31% of the Tahitian [brown widow spider](#) egg sacs that were dissected.

"When I began to dissect egg sacs and I saw parasitoid wasps," wrote Marie, "I said 'Good news, our paper will include the establishment of two new species [on Tahiti], an invasive one and its biocontrol agent!'"

Because of the relatively weak venom, the non-aggressive behavior tendencies, and the natural control agent found concurrently, Marie and Vetter stress education and awareness over concern. Furthermore, they suggest that the public would be better off spending time and energy battling mosquitoes, which pose a more severe threat to human health than the spiders do because of their ability to transmit viruses such as Chikungunya and pathogens that cause diseases.

More information: The full article from the *Journal of Medical Entomology* is available at: [jme.oxfordjournals.org/lookup/ ... i/10.1093/jme/tjv127](http://jme.oxfordjournals.org/lookup/...i/10.1093/jme/tjv127)

Provided by Entomological Society of America

Citation: Brown widow spider reported for the first time in Tahiti (2015, August 25) retrieved 7 May 2024 from <https://phys.org/news/2015-08-brown-widow-spider-tahiti.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.