

Stay Away Little Fire Ant



"You have no idea what you're in for!" a Big Island resident exclaimed to me at this year's Hawai'i Conservation Conference. This isn't the first time someone has expressed their pity for O'ahu regarding the discovery of little fire ants on the island. Little fire ant was first detected on the Big Island in 1999 and residents have been plagued by the invasive ant ever since. The initial discovery of little fire ants was on the windward side in the Puna district and they have since spread up and down the windward coast from Kalapana to Laupahoehoe. By

2010, little fire ants even hitchhiked to Kailua-Kona on the leeward side and are now smattered from North Kohala to South Kona.

Little fire ants were detected on O'ahu and Maui in December 2013. Transported on a shipment of hapu'u logs from the Big Island, the detection triggered a statewide search by the Hawai'i Department of Agriculture, tracing all known destinations of the hapu'u logs. Small little fire ant infestations have been found and treated in garden centers and nurseries on O'ahu, however, not all of the shipment locations were known. In response, a multi-agency Incident Command System was formed to address this crisis. A partnership of agencies are working together to not only find and control little fire ant, but to also raise awareness of the pest among O'ahu residents.

In April 2014, little fire ants were detected on an abandoned lot in Waimanalo. Hawai'i Department of Agriculture, O'ahu Invasive Species Committee and the Hawai'i Ant Lab conducted a delimiting survey to determine the size of the infestation. Including the buffer zones around the infestation, a total of six acres will be treated every six weeks for at least one year or until the last ant is killed, then monitored for three years. The size of the infestation indicates little fire ant could have been present for several years.

The first residential infestation on O'ahu was confirmed in Miliani-Mauka in June when a resident tested their property and submitted the sample to Hawai'i Department of Agriculture. Surveys of the area conducted by the department and the O'ahu Invasive Species Committee determined that about 20 properties and a portion of a green space between Kopalani Street and Auina Street are infested with little fire ants. Residents say they have been seeing the ant for at least four years and the size of the infestation also suggests that little fire ant has been in the area for several years. The first round of treatment has begun, mirroring the treatment plan for Waimanalo.



So what's the big deal? You'd be hard pressed to find a home in Hawai'i that doesn't have ants of one kind or another. Hawai'i is now host to over 50 species of ants, none of which are native. Many people are asking, "What's one more ant?" But this is not just any other ant. Little fire ant is listed on the world's 100 worst invasive species and is also one of the nastiest invasive tramp ants. Tramp ants' habitat and activity make them exceedingly good at moving around the world with people. On their own, little fire ant only spreads about 60 feet per year, however hitching a ride with us is easy, especially because the ant can nest in the ground, leaf litter, potted plants, crowns of trees and in homes, vehicles and equipment. One little fire ant colony can fit inside of a macadamia nut shell

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Photos by Anita Wintner

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Conservation Council
for Hawai'i

*Hawai'i's Voice
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info@conservehi.org
www.conservehi.org



making transportation easy, but detection extremely difficult.

Little fire



antareseverely invasive with the capacity to negatively impact all aspects of society, the economy, environment, health and quality of life in Hawai'i. On the Big Island, Richardson Beach Park in Hilo has already closed four times this year to treat ant infestations. This treatment occurs every six weeks and even though the population has been drastically reduced, eradication of the local infestation at the beach park is not expected and long-term management will be necessary. Little fire ant treatments are also being conducted at Panaewa Rainforest Zoo and the Bayfront Soccer Fields in Hilo. The Hawai'i County Department of Parks and Recreation has recently received \$200,000 from the Hawai'i Department of Agriculture and \$175,000 from the Hawai'i Invasive Species Council to fund a little fire ant control program in the county's parks and facilities. The program is a necessary measure towards protecting residents and visitors from the ants' sting and to keep these areas from being overrun by little fire ant to the point of abandonment.



Little fire ants have painful stings that itch and burn, causing rashes and welts. Children and people with allergic sensitivities tend to have a more severe response to the stings. When scratched, they leave open wounds exposed to infection. Domestic animals and pets are also subjected to the pain of little fire ant stings and they are susceptible to blindness after being repeatedly stung in their eyes.

The agricultural sector is especially vulnerable to impacts of little fire ant.

Agricultural workers are repeatedly stung which can drive up the cost of labor and make finding laborers difficult. Severe infestations can ruin agricultural businesses with the financial burdens of control, high labor costs and even quarantine. Such additional costs may force businesses to close or be passed on to the consumer. Little fire ant actively farm agricultural pests like mealy bugs and aphids, which feed on the sap in plants. They then excrete a sugary substance called honeydew that the ants use as an energy source. Little fire ants will protect these aphids and mealy bugs from other predators, allowing their numbers to increase causing damage to crops. In some areas of Tahiti and the Big Island, little fire ants have driven owners to walk away and abandon their land!

The good news is that, as far as we know, the O'ahu little fire ant infestation is still in the early stages. Early detection is crucial to preventing the establishment of this ant and businesses and residents are urged to test their property for little fire ant. Testing is as simple as putting a thin smear of peanut butter on chopsticks and placing them in the shade around shrubs, potted plants, mulch piles and in trees. After 45–60 minutes, collect any peanut butter sticks with ants, seal them in a zip top bag and put them in the freezer for a day. Put your contact information on the zip top bag and the mail them to the Hawai'i Department of Agriculture (1428 S. King Street, Honolulu, HI 96814) to be examined by an entomologist. If your sample is identified as little fire ant, you will be contacted immediately to schedule a comprehensive survey and discuss the treatment plan to



eradicate little fire ant in your area. If it is not little fire ant, the department will still contact you to let you know that you are currently in the clear. Left unchecked, the population density of little fire ants can reach staggering numbers. Their nests have multiple queens and the nests share workers, thereby creating massive three-dimensional super colonies that can extend hundreds of acres. Little fire ant populations can average about 20,000 individuals per 10 square feet, which means a 5,000 square foot lot can have more than nine million little fire ants! They are also voracious eaters that displace, decimate and dominate local insect populations. Native insects not only provide a direct food base, but many are unique pollinators for native flora that are ecologically invaluable to a resilient and diverse ecosystem. The environmental services provided by healthy ecosystems include efficient watersheds for vital recharge of aquifers, erosion and flood control, increased surface water quality and near shore coral reef protection just to name a few. The impacts little fire ant can have on an ecosystem are dangerous and far-reaching.

The risk of little fire ant infestation to Hawai'i will always be present as the Big Island infestation shows no sign of being eradicated. However, you can protect your family and your property by testing for little fire ant every 6 months and test all new gardening and landscaping materials you receive in the future. To report little fire ant, call the Hawai'i Department of Agriculture, pest hotline at 643-PEST or contact the O'ahu Invasive Species Committee for more information at 266-7994 or oisc@hawaii.edu. You can also visit www.littlefireants.com or www.LFAHawaii.org. —Erin Bishop,

Outreach Specialist, O'ahu Invasive Species Committee

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