State of Hawaii
DEPARTMENT OF AGRICULTURE

New Pest Advisory
No. 99-02 Updated February 2007

Figure 1. Little fire ant worker

Little Fire Ant

Wasmannia auropunctata (Roger)

(Hymenoptera: Formicidae)

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Introduction. Specimens of a tiny ant (Figure 1) were first collected by a resident of Hawaiian Paradise Park, located in the Puna District of the Big Island, in March 1999 and submitted to the Hawaii Department of Agriculture (HDOA). They were identified as the little fire ant (LFA), *Wasmannia auropunctata* (Roger), by HDOA Plant Quarantine Insect Specialist Dr. N. Reimer. According to Wheeler (1929), *W. auropunctata* is Neotropical in origin and is known throughout central and northern South America, the West Indies, and the warmer portions of Mexico. Nickerson (1983) reported that it is common in south Florida, and Hayashi (1999) mentioned its presence in West Africa, Galapagos Islands, New Caledonia, and the Solomon Islands. Although Nickerson stated that LFA occurs in California, inquiries to the California Department of Food and Agriculture revealed that there is no record of it being established in the state. However, there have been numerous interceptions of LFA in California (E. Fisher 1999, pers. comm.)

Description. Little fire ants are tiny, measuring 1/16 inch long. They are pale orange and characteristically move very slowly. They produce painful stings and large red welts. Ants on the ground rarely sting, but will readily sting when they get under clothing as they drop off shrubbery. Creighton (1950) mentions that the severity of the sting of LFA is out of proportion to its small size. Spencer (1941) adds that, for some people, "the sting lasts for three days, aching painfully at first and later itching intensely by spells."

Figure 2. Little fire ant infestation on ground

Distribution. In April 1999, three separate infestations of the little fire ant were found at Hawaiian Paradise Park and another infestation was uncovered in a nursery at Kapoho in the Puna District of the Big Island. In late August 1999, the ant was found in 20 acres of a much larger fruit orchard in Papaikou, about 4 miles north of Hilo. Apparently, infested palm trees were planted as windbreaks around the fruit orchard in 1995, indicating that LFA was probably established in some commercial nursery plants at least four years prior to its being first discovered (Conant and Hirayama 2000). LFA is widely distributed in East Hawaii with infestations occurring from Laupahoehoe in the Hamakua District

to Kalapana in the Puna District. The highest elevation which LFA has been found is 1500' at Mountain View. Infestations are also known in Waiakea Uka and Kaumana in South Hilo. Over 50 infestation sites are known in East Hawaii. Of these, over a dozen nurseries and landscaper baseyards are infested and are potential sources of infested potted plants. HDOA is working with the owners to suppress the ants. All other known infestations are in Puna or South Hilo districts. Surveys to determine the extent of the infestations in Puna and other areas on the Big Island are continuing. In 2006, a joint survey (Natural Resource Conservation Service and U.H. – Pacific Cooperative Studies Unit) of all known plant nurseries in Kona did not uncover any LFA in either the North or South Kona Districts. However, the steady traffic of landscaping plants from East Hawaii to Kona presents a high risk for introduction of the ant to Kona. Persons transporting plant parts, soil, cinders, green waste, etc. to Kona should use the peanut butter chopstick method to detect LFA prior to movement. Do not move infested material (see http://www.ctahr.hawaii.edu/oc/freepubs/pdf/IP-16.pdf). In 1999, an infestation of LFA was found at Kalihiwai on Kauai. Through the use of Amdro fire ant bait, the infestation is being suppressed with eradication as the goal.

Habitat. The ants are easily found outdoors crawling on the ground (Figure 2), in and under potted plants, and on ornamental foliage and flowers. Worker ants feed on dead insects, other arthropods, small animals, and are predaceous on many insects (Smith 1965). According to Spencer (1941), the ant feeds preferably on honeydew from sucking insects. Ulloa-Chacon and Cherix (1990) mention that interspecific competition by this ant gradually eliminates other ant species and terrestrial invertebrates in newly colonized areas. So far, there have been at least 5 reports of people being stung inside their homes on the Big Island. According to Smith (1965), *W. auropunctata* can be a household pest which infests clothing, beds, furniture, or food. Fernald (1947) reports that *W. auropunctata* do not form definite nests, but clusters of them may sometimes be found in cracks and crevices or under leaf litter, stones, or other material on the ground. According to Nickerson (1983), these "nests", which contain several queens, numerous workers, pupae, larvae and eggs, are connected with each other by movement of the workers. Spencer (1941) mentions that new nests are apparently formed by budding as nuptial flights have never been observed.

Control. For growers of tropical fruit and nut orchard crops Amdro can be applied in bait stations. However, a copy of the Special Local Need label is required and is available from the HDOA Hilo office.

Acknowledgements. We gratefully acknowledge C. Hirayama and K. Onuma for conducting field surveys for this ant. This material was made possible, in part, by a Cooperative Agreement from the United States Department of Agriculture's Animal and Plant Health Inspection Service (APHIS). It may not necessarily express APHIS's views.

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