

LITTLE FIRE ANT

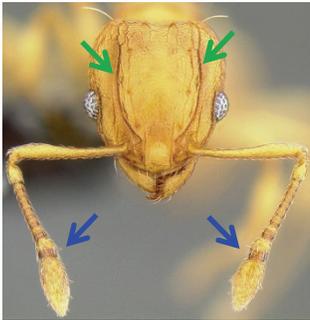
Scientific name: *Wasmannia auropunctata* (Roger)

Order: Hymenoptera Family: Formicidae

Common name: little fire ant

DESCRIPTION

- Little fire ant (LFA) workers are approximately 1.5 mm in length, reddish to golden brown, and move very slowly. They can be identified by looking for distinctive characteristics under magnification.



- 2 **grooves** on the front of the head where the antennae can lay at rest (antennal scopes).
- antennae end in two-segmented **clubs**
- long, pointy **spines** on the upper abdomen (propodeum)
- 2 **nodes** (petiole and post-petiole)

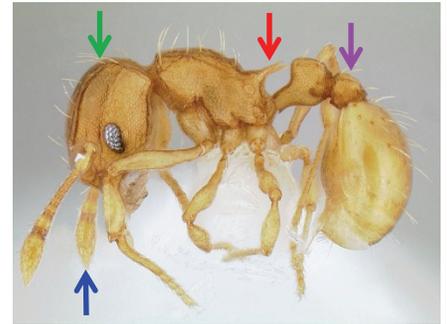


Photo credits: (left) <http://antkey.org/taxa/wasmannia-auropunctata>; (right) Michael Branstetter / © AntWeb.org / CC-BY-SA-3.0

Queens are **winged**, **dark brown** and **approximately 3 times the size of workers**, 4.5-5.0 mm in length. Nests may have **multiple queens** who lay eggs that develop into **sterile workers** or **reproductive adults**.

Worker Queen



W Nagamine, HDOA

Worker Male



Adult males are **winged**, dark brown with yellowish antennae and legs, and approximately 4.5 mm in length with a slender body. At their posterior ends are very **conspicuously curved genitalia**.

- actual size of LFA worker
- actual size of LFA queen and adult male

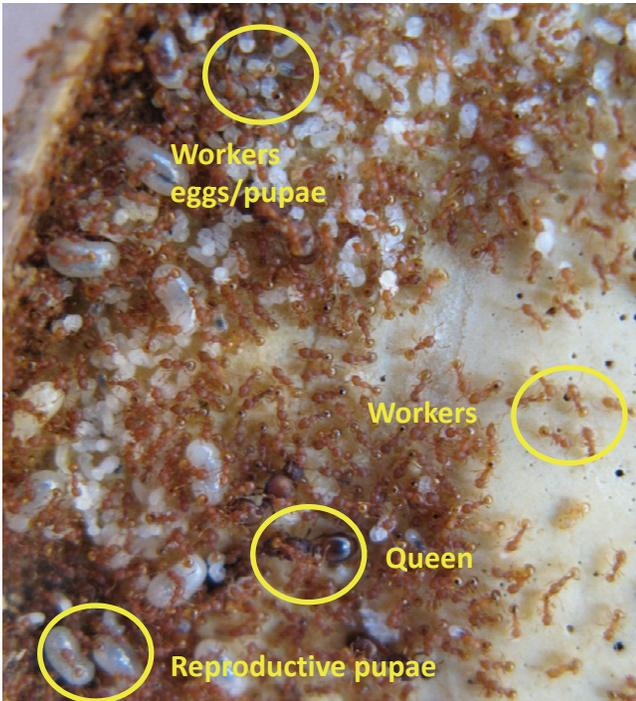


DAMAGE

LFA have been responsible for painful stings to visitors, residents, and landscape and nursery workers. Its sting can also harm animals (pets and livestock), and multiple stings to the eye can cause blindness.

References:

- 2010 (rev). Alien Pest Alert: Stop the Little Fire Ant. IP-24. University of Hawaii, College of Tropical Agriculture and Human Resources, Honolulu, HI.
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- Souza, E., P. A. Follett, D. K. Price, and E. A. Stacy. 2008. Field suppression of the invasive ant *Wasmannia auropunctata* (Hymenoptera: Formicidae) in a tropical fruit orchard in Hawaii. *Journal of Economic Entomology* 101: 1068-1074.
- Ulloa-Chacon and P., D. Cherix. 1990. The Little Fire Ant *Wasmannia auropunctata* (R.) (Hymenoptera: Formicidae), pp. 281-289. In: R. K. Vander Meer, K. Jaffe, and A. Ceden. *Applied Myrmecology A World Perspective*. Westview Press, Boulder, CO.
- Vanderwoude, C., K. Onuma, and N. Reimer. 2010. Eradicating *Wasmannia auropunctata* (Hymenoptera: Formicidae) from Maui, Hawaii: the use of combination treatments to control an arboreal invasive ant. *Proceedings of the Hawaiian Entomological Society* 42:23-31.



LIFE CYCLE/BEHAVIOR Egg to Adult worker: 37 days

- Under lab conditions (26°C, 60% RH), **egg** incubation lasts 8-10 days, **larval** stage 16-18 days and the **pupal** stage 11-12 days.
- LFA are attracted to **honeydew-producing insects** (aphids, mealybugs, soft scales scales and whiteflies), tending them and warding off their natural enemies (predators and parasitoids).
- LFA are also attracted to food with **high fat content**, such as peanut butter, hot dogs, other oily materials. Workers will also feed on decaying plant and animal matter.
- LFA actively forage during **cooler, drier** times of the day.
- When LFA becomes established in an area, they will **drive out other ant species**. Once LFA populations decrease, other ant species can re-establish themselves.

HABITAT

- LFA will nest in both **open and shaded areas**, but during heavy rain they will move up **into buildings or trees**.
- Because LFA develop **3-dimensional super-colonies** that occupy the ground layer and arboreal habitats (trees), they are difficult to control.
- LFA colonize in vegetation, in areas that are **undisturbed** for long periods of time, such as under weed mats and stock pile areas, or **where moisture accumulates**, such as drains, culverts, water pipes, and crotches of trees.



Under weed mats



Electrical sockets



Stock piles



Tree trunks



Between rocks

BEST MANAGEMENT PRACTICES FOR LITTLE FIRE ANTS

	OPTIONS AVAILABLE
MONITORING TECHNIQUES	<ul style="list-style-type: none"> ▪ Inspect all incoming propagative materials and plants before moving them into the nursery. ▪ Survey nursery/field stock for LFA using peanut butter smeared thinly on wooden chopsticks placed every 10 ft along perimeters and within shadehouses or fields. After 30-45 min, retrieve and inspect the sticks for foraging ants. <i>(Refer to UH CTAHR publication IP-24 for more details.)</i>
SELECT BEST CONTROL METHOD	<ul style="list-style-type: none"> ▪ Inspect all field/nursery stock movement. ▪ Treat with an approved bait insecticide and survey 2-3 weeks after treatment. Repeat these steps until ants are no longer found when surveying. <ul style="list-style-type: none"> ○ Granular baits: <ul style="list-style-type: none"> ▪ Amdro (0.73% hydramethylnon) ▪ Distance (pyriproxyfen, IGR) ▪ Extinguish Plus (0.365% hydramethylnon, 0.250% S-methoprene) ▪ MaxForce Complete (1.0% hydramethylnon) ▪ Pro bait (0.73% hydramethylnon) ○ Talstar/Upstar (7.96% bifenthrin): non-bait insecticidal granules used as a preventative treatment incorporated in potting media; liquid used as a residual barrier treatment (Restricted Use pesticide - for use by certified applicators only) ○ Tango - IGR (insect growth regulator) (S-methoprene) liquid (must be mixed and diluted with a bait matrix ○ Contact / residual sprays to kill foraging workers
TREATMENT BEFORE MARKET	<ul style="list-style-type: none"> ▪ Hot water shower at 113°F for 10 minutes will kill adult LFA. ▪ Apply approved ant bait to kill ant colony.
FINAL INSPECTION	<ul style="list-style-type: none"> ▪ Visually inspect plants for LFA on plants or pots. ▪ Place a wooden chopstick with peanut butter in pots for 30-45 minutes to ensure that no LFA are present.

Precautionary statement / Disclaimer: These recommendations are provided only as a guide. Please read and follow all label directions.