



# Red imported Fire ant

## Taxonomy

Order: Hymenoptera

Family: Formicidae

Species: *Solenopsis invicta* Buren

*Solenopsis invicta* ("*invicta*", latin meaning invincible) or the Red Imported Fire Ant is one of the worlds most studied pests and has gained worldwide notoriety. From its native origins of South America, it has invaded Australia, New Zealand, parts of Asia, USA and various Caribbean countries. In the U.S. it causes billions of dollars of damages annually. With a potent venom comprising of alkaloids proteins, peptides, and other small molecules, when it stings it can quickly subdue prey while defending itself effectively against larger vertebrates. Symptoms post sting in a human might be anything from mild eczema to anaphylactic shock. There is nearly always a "burning" sensation reported hence the common name. Worker ants respond rapidly and aggressively to disturbances, colonies maybe extremely widespread and they are well recognised for their ability to survive natural disturbances.

## Biology

*S. invicta* lives and thrives in a wide array of habitats. It can be found in disturbed and natural forested areas, along roadsides, in lawns, gardens, parks, pastures. Nests tend to occur in exposed sunny open areas. The mounds may be 10-60cm high depending on what the building material is.

## Distribution in Caribbean

Common throughout the Caribbean region, including Anguilla and TCI in disturbed and natural habitats.



Profile view of a worker of  
*Solenopsis invicta* © April Nobile / AntWeb.org



Anterior view of a worker of  
*Solenopsis invicta* © April Nobile / AntWeb.org

## Pathway of Entry

Natural dispersal: primarily by the mated queens flying to start new nests but colony budding or nest fission (a newly inseminated queen, accompanied by some worker ants, establishes a new satellite colony) also occurs. Colonies may also be transported by water as when they form rafts" .

Intentional/Anthropogenic dispersal: via plant and soil material, infested passenger luggage, empty sea containers, timber, hay, fresh produce etc. They can be transported via every manner of vehicle and any article of commerce. Colonies often contain many queens (polygynous) which if moved long distances further disperse the species.

## Further Information:

ANTWIKI: [https://www.antwiki.org/wiki/Solenopsis\\_invicta](https://www.antwiki.org/wiki/Solenopsis_invicta)

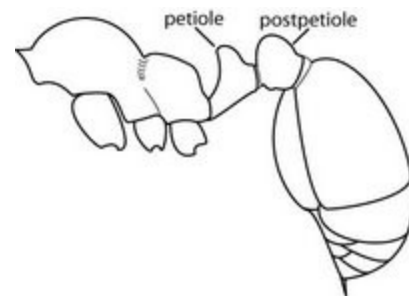
CABI 2020: <https://www.cabi.org/isc/datasheet/50569>



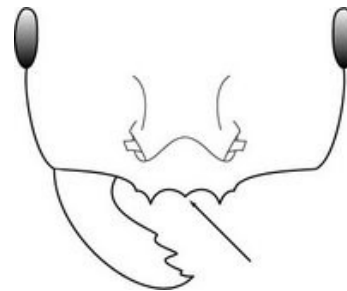
Reactions to stings from *Solenopsis invicta*, BVI © C. Malumphy



Colony of *Solenopsis invicta*, BVI © C. Malumphy



Profile view of *Solenopsis invicta* showing the petiole and post-petiole © Eli Sarnat / PIAkey



*Solenopsis invicta* showing clypeal margin with middle tooth between two lateral teeth © Eli Sarnat / PIAkey

### Impact

Native biodiversity is adversely affected, and the ants are indiscriminate with what arthropod species they attack for food. They may outcompete native ant-fauna and attack ground-nesting populations of rodents, birds, reptiles and amphibians. They are a major agricultural pest and are a danger to livestock, irrigation systems, plants, fruits, seeds, buds, new growth and tubers. They tend phytophagous Hemiptera such as aphids and scale insects.

### Field Description

A polymorphic species with ants 1.5-6.0 mm in length. Antennae are 10-segmented with a two-segmented club. There is a central tooth between two lateral teeth on the clypeal margin of the head.

Specimens are generally red to amber coloured with a strongly contrasting black gaster (abdomen). As with all Myrmicine ants, it has two segments (petiole & postpetiole) between the thorax and gaster. The thorax is lacking any propodeal spines and the gaster is armed with a sting.

### Similar Species

It may be confused with *Monomorium* species, but the latter have 12-segmented antenna with a three-segmented antennal club. It may also be mixed up with *Cardiocondyla* species, but these have propodeal spines, 12-segmented antenna with a three-segmented antennal club and an obvious swollen postpetiole in dorsal view.