Host Range of the Microsporidian Pathogen Vairimorpha invictae at Three Field Sites in Argentina

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The microsporidian pathogen Vairimorpha invictae is being evaluated for possible release in the United States as a potential classical or self-sustaining biological control agent for imported fire ants. We examined the host range of this pathogen in northern Argentina by collecting ants and other arthropods from three sites where Solenopsis invicta fire ant colonies had high levels of infection (28–83%). We examined 235 nonant arthropods from 10 orders, 43 families, and more than 80 species with a PCR screening procedure; none were infected with V. invictae. We also examined 509 non-Solenopsis ants from 12 genera, 19 species, and 61 baits using the same PCR screening procedure; again, none were infected with V. invictae. These data indicate that, in its native South American range, V. invictae is specific to Solenopsis fire ants.

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