

New fly released in Florida decapitates fire ants

Red imported fire ants first arrived in the U.S. in the 1930s through the port of Mobile, Alabama. The original ants were probably stowaways on ships from South America, which is where they are native. These ants now inhabit more than 350 million acres in 12 southern states and Puerto Rico. They have recently become established in isolated sites in California and New Mexico.

United States Department of Agriculture (USDA) scientists are releasing the fifth species of phorid fly to control fire ant populations. These phorid flies are also native to parts of South America. They don't have a taste for our native ants but go after the red imported fire ants. The adult female fly, which is much smaller than the fire ant, hovers over an ant and quickly inserts an egg inside the ant. A larva (maggot) hatches, migrates to the ant's head and eventually results in the ant's head falling off.

The following was written by Sharon Durham, Public Affairs Specialist with USDA.

Agricultural Research Service (ARS) entomologist Sanford Porter and his colleagues at the ARS Center for Medical, Agricultural and Veterinary Entomology (CMAVE) in Gainesville, FL, have collected, bred and released phorid flies that help to control fire ant populations in the southern part of the United States.

Scientists at CMAVE and cooperators in several states conducted the fire ant biocontrol program to suppress the stinging insects in large areas. Since the program began in 1995, five species of phorid flies have been released to parasitize various sizes of fire ants, from large to very small. According to Porter, the relationship between phorid fly and fire ant is very specific: The introduced phorid fly species only attack imported fire ant species.

The fifth phorid fly species, *Pseudacteon cultellatus*, is currently being released at several sites in Florida to control tiny fire ant workers that belong to multiple-queen colonies. These colonies are particularly problematic because they usually house two to three times the number of worker ants.

Of the four phorid fly species previously released, only one has failed to establish itself and widely spread out. *Pseudacteon litoralis*, released in 2004 and 2005, was only able to establish itself in Alabama. The others (*Pseudacteo tricuspis*, *Pseudacteo curvatus* and *Pseudacteo obtusus*) have expanded well beyond their release sites and are attacking fire ants across large areas. *Pseudacteo tricuspis* and *Pseudacteo curvatus* each cover over half of the U.S. fire ant range. And that is expected to increase to well over two-thirds of the range by the end of 2011, according to Porter.

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