Scientists release biocontrol for water hyacinth

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A new insect that will help control the invasive weed waterhyacinth has been released by Agricultural Research Service (ARS) scientists and cooperators.

Waterhyacinth (*Eichhornia crassipes*) is a free-floating aquatic plant native to South America that has infested freshwater ecosystems from North Carolina to California but is especially problematic in the southeastern United States. The plant is a real menace, affecting water traffic, water quality, infrastructure for pumping and hydroelectric operations, water use and biodiversity. Other problems include fish kills due to low oxygen levels and increases in populations of vectors of human and animal diseases.

ARS entomologists Philip Tipping and Ted Center, both with the agency's Invasive Plant Research Laboratory (IPRL) in Ft. Lauderdale, Fla., worked closely with scientists at the ARS South American Biological Control Laboratory (SABCL) in Buenos Aires, Argentina, to find and test *Megamelus scutellaris*, a new biocontrol for waterhyacinth.

M. scutellaris is a small planthopper native to South America whose nymphs and adults feed on the sap of waterhyacinth. Nymphs are active and readily hop, even off the surface of the water. The insect's population increases rapidly, which will enable it to quickly impact the waterhyacinth population.

Herbicides are the primary method for reducing waterhyacinth, but their

use directly interferes with the biocontrol agents currently deployed against this weed. The scientists believe *M. scutellaris* may integrate better with existing herbicide programs because of its mobility, which should improve its survival in such highly managed systems.

The researchers collected adults of *M. scutellaris* from Argentina in April 2006 and brought them to the quarantine facility in Ft. Lauderdale where extensive host-range studies were conducted. They found that the planthopper is highly host-specific and does not pose a threat to native or economically important species.

Tipping and Center will join representatives from the Florida Fish and Wildlife Conservation Commission, which provided more than $300,000 in financial support for the project, and the U.S. Army Corps of Engineers at an event celebrating the insect's release today at the Edgefield Stormwater Treatment Facility owned by the St. Johns River Water Management District near Palatka, Fla.

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