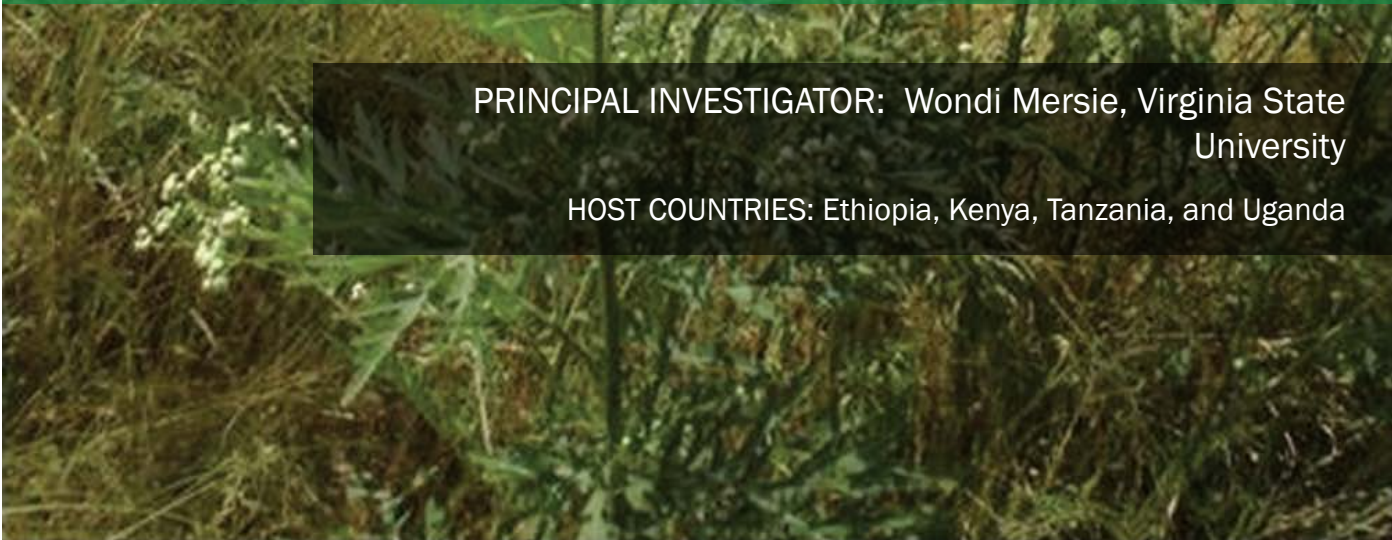




**PARTHENIUM:**  
abating parthenium (*Parthenium  
hysterophorus* L.) weed damage in eastern  
africa using integrated cultural  
and biological measures  
**global program**

PRINCIPAL INVESTIGATOR: Wondi Mersie, Virginia State  
University

HOST COUNTRIES: Ethiopia, Kenya, Tanzania, and Uganda



# Parthenium

## program summary

Parthenium surveys in Kenya, Tanzania, and Uganda were completed. In Ethiopia, *Listronotus setosipennis* host-range test has been completed, and no eggs were laid on any of the non-target plants tested. An Environmental Assessment (EA) document for *Listronotus setosipennis* has been prepared for review. Two bioagents, *Zygogramma bicolorata* and *Listronotus setosipennis*, were maintained under quarantine at Ambo, Ethiopia.

A workshop entitled “Strategic meeting to abate the spread and adverse impact of the invasive weed parthenium (*Parthenium hysterophorus*) in Ethiopia” was conducted from September 3-4, 2012 with the objective of developing an implementation strategy for the management of parthenium. Eight papers, dealing with composting, parthenium distribution in two regions, and a summary of host *Zygogramma* host range tests, were presented. A partners’ planning and training workshop was held in Addis Ababa, Ethiopia, December 19-21, 2011. The workshop included presentations from the three partner countries on the progress of project activities. Participants visited the future release site and the quarantine facility at Ambo.

# KENYA

## Survey of Parthenium

A survey undertaken in January of 2012 has confirmed the presence of pockets of parthenium in Eastern Kenya. Following more fieldwork in Kenya in January, the parthenium localities database has been updated and more analysis has been conducted on the regional data.

# ETHIOPIA

## Biological control

Two bioagents, the leaf feeding beetle (*Zygogramma bicolorata*) and stem boring weevil (*Listronotus setosipennis*), are being reared under quarantine facility at Ambo Plant Protection Research Center. The host range test for both bioagents has been completed. No eggs were laid by *Listronotus* adults on any of the plants tested. An Environmental Assessment (EA) document for *Listronotus* has been prepared and is under review. An application to release *Listronotus* will be submitted once the review is completed.

## Release and evaluation of *Zygogramma*

The leaf feeding beetle *Zygogramma* has been under maintenance in the quarantine facility at Ambo Plant Protection Research Center. The permit to release *Zygogramma* at Willinchiti in the Oromiya Region has been granted by the Ministry of Agriculture and Rural Development (MOARD) and the Ethiopian EPA. Currently, USAID approval of the EA is awaited.

## Other Activities

- Preparation of EA for *Listronotus* has been completed and is ready for review
- The project coordinator travelled to Jijiga town, the capital of the Somali regional state, and Haramaya University, May 20-23, 2012. He discussed with Dr. Abdulkadir Eman, head of the Somali regional Bureau of Agriculture, on how the release of *Zygogramma* can be implemented in the region. It was learned that there is a great interest in the release of the bioagent. The coordinator also visited a site at

Haramaya University, where a composting structure exists. It is planned to use a similar structure, at future release sites, for composting parthenium as part of its integrated management.

- Meeting with the head of the Oromiya Environmental Protection Authority to discuss the project's progress, the EPA approval (which had been forwarded to the Oromiya Agricultural Research Institute), and the bioagent's function.
- Meeting with the Director General and Crop Research Director of the Oromiya Agricultural Research Institute (OARI) to discuss the bioagent release.
- Meeting with staff of Haramaya University (HU), a major partner in the development of parthenium management practices, to discuss involving graduate students in exploring alternate ways parthenium can be used (e.g., in compost) as well as the work of program-supported graduate students.
- Improvement of the quarantine facility at Ambo housing *Zygogramma* and *Listronotus* through air conditioner and breaker installation, which is expected to reduce the risk of losing the bioagents if the existing ACs fail to function.