

IPM Innovation Lab Trip Report

Country Visited: Ethiopia

Dates of Travel: December 13 to December 30, 2017

Travelers' Names and Affiliations: Wondi Mersie, Virginia State University (VSU)

Purpose of Trip: to assess on-going bioagent rearing activities and identify release sites for 2018 season.

Specific objectives of the trip were to:

- (i) To confer with partners and plan the activities of the Parthenium Project for FY2018.
- (ii) To review the progress of the rearing activities in Ethiopia and if necessary make changes on the procedures followed to raise parthenium stock and rear the bioagents, *Zygogramma* as well as *Listronotus*.
- (iii) Visit sites where *Zygogramma* was released in 2017.
- (iv) To identify potential field sites for bioagent release during the coming season.
- (v) To discuss with partners about the progress in implementing the objectives of the Parthenium Project.

Sites Visited: Addis Ababa, Harar, Wollenchiti, Ambo University (Guder Campus), Koka farmer's fields and Melkassa.

Description of Activities/Observations:

Itinerary:

December 13: Traveled to northern Virginia to spend the night for the morning flight

December 14: Fly from U.S.A. to Addis Ababa, Ethiopia

December 15: Arrived in Addis Ababa, Ethiopia

December 16: In the morning, visited the Wollenchiti rearing facility and conferred with Ms. Sintu (Lidya) Alemayhu, VSU's Parthenium Project Coordinator in Ethiopia. Met the workers at the rearing facility and examined the conditions of the *Zygogramma* and *Listronotus* cultures. Delivered supplies brought from U.S. to the rearing site. In the afternoon, traveled to Koka east of Mojo to visit a farmer's field where *Zygogramma* was released in August 2017. Identified sites for future releases of *Zygogramma* and *Listronotus* in the surrounding fields.

December 17: Worked on a manuscript about host-range results of *Zygogramma* and *Listronotus*. Met with Lidya Alemayehu to discuss 2017 project progress and plans for the 2018 season.

December 18: Traveled to Ministry of Agriculture and Natural Resources. Met Mr. Woldehawariat Assefa, Director General of Plant Health and Regulatory Directorate. Briefed him on the progress of the Parthenium Project and asked him to provide assistance in implementing project objectives. Gave him publications describing the ongoing work and some of the accomplishments of the project.

December 19: Continued to work on a manuscript about host-range results of *Zygogramma* and *Listronotus*.

December 20: Visited the USAID Mission in Ethiopia. Met Dr. Faith Bartz Tarr and briefed her on the Parthenium Project implementation in Ethiopia. Provided her publications that describe the accomplishments of the Parthenium Project. The discussion also touched on the planned activities of the Parthenium Project in 2018.

December 21: Travelled to Guder to visit the rearing facility and confer with staff who work there. The rearing facility is located on a satellite campus of Ambo University (AU) at Guder. Met AU faculty who are collaborating on the Parthenium Project and held discussion with Dr. Buzonesh Mideksa, Vice President for Research and Community Service at Ambo University and Dr. Mulugeta Negari, Dean of the College of Agriculture and Veterinary Science. Both visited the bioagent rearing facility and a discussion was held on future plans, especially holding a field day for farmers to demonstrate the use of the biocontrol agents for the management of parthenium. Met with staff at the rearing site and discussed the challenges they face. Delivered supplies brought from U.S. for the rearing site. Returned to Addis Ababa late in the afternoon.

December 22: Traveled from Addis Ababa to Dire Dawa.

Drove from Dire Dawa to fields around Haramaya and Harar that are infested with parthenium. Identified fields where *Zygogramma* and *Listronotus* could be released in 2018. Drove back to Dire Dawa in the afternoon to spend the night for next day flight.

December 23: Returned from Dire Dawa to Addis Ababa.

December 24: Reviewed data collected by staff at Wollenchiti from an experiment conducted on the impact of different populations of *Listronotus* on parthenium.

December 25: Met Lidya Alemayehus and discussed the activities planned for 2018.

December 26: Traveled to Melkassa, 70 miles south east of Addis Ababa to visit one of the Ethiopian Institute of Agricultural Research's (EIAR) research centers. This center, located on the banks of the Awash River, has fields heavily infested with parthenium. Three potential sites with parthenium were identified for possible releases of *Zygogramma* and *Listronotus*. These secure sites could be used as sources of the biocontrol agents in the future.

December 27: Traveled to EIAR Head Office to meet Dr. Kassahun Zewide. Discussions were held with Dr. Kassahun on the future role of EIAR in the Parthenium Project and the release of the biocontrol agents at Melkassa Research Center.

December 28: Held final meeting with Lidya Alemayehu and discussed project personnel and budget issues.

December 29: Traveled back from Addis Ababa to U.S.

December 30: Arrived at Dulles International Airport

Training Activities Conducted: No formal training session was organized on this trip.

Suggestions, Recommendations, and/or Follow-up Items:

Suggestions and recommendations were provided to staff on proper care of parthenium and the bioagent cultures. Recommendations and suggestions included how to produce quality parthenium stock for rearing the bioagents on a regular basis, rearing of the bioagents and how to

select release sites. The importance of monitoring the establishment and spread of the released agents was also emphasized to staff.

List of Contacts Made:

Name	Title/Organization	Contact Info (address, phone, email)
Woldehawariat Assefa,	Director General of Plant Health and Regulatory Directorate, Ministry of Agriculture and Natural Resources	+251116462417
Faith Bartz Tarr	AAAS Science and Technology Policy Fellow & Agricultural Advisor, USAID Mission, Addis Ababa, Ethiopia	fbartz@usaid.gov 251111306002
Buzonesh Mideksa,	Vice President for Research and Community Service, Ambo University	Ambo University Ambo, Ethiopia
Mulugeta Negeri	Dean, College of Agriculture and Veterinary Science at Ambo University, Guder Campus	+251911896296 negerimulugeta@yahoo.com
Fulea Gelana	Laboratory technician; Ambo University	+251 920162113 e-mail: fula2012@gmail.com
Asmaret TekleMariam	Technician; Ambo University; Guder Campus	+251912953028
Emawayush Mulet	Technician; Ambo University; Guder Campus	
Derartu Ebisa	Technician; Ambo University; Guder Campus	
Bekele Gelana	Technician; Ambo University; Guder Campus	
Mulu Haile Giorgis	Technician; Wollenchiti	
Demeku Zewdie	Technician; Wollenchiti	
Kassahun Gurge	Technician; Wollenchiti	
Kassahun Zewdie	Senior Researcher; EIAR	+251 911186486 email: kassahunzewdie@yahoo.com
Lidya Alemayhu	Coordinator of Parthenium Project; VSU	+251913246933 e-mail: sintualemayhu@gmail.com