TRAINING REPORT

Name of CSE Grantee: **Marnelli P. Sotto-Alviola**

Position/Designation: Graduate Student and University Research Associate, University of the Philippines Los Baños, Laguna, Philippines

Title of Training: Springtails (Hexapoda: Collembola) Collection, Preservation, Morphology, Taxonomy and Identification Training

Training Background: This specialized training was provided by one of the leading collembologists in the world, **Dr. Felipe N. Soto-Adames**. Curator of Thysanoptera and Collembola at the Department of Plant Industry, Florida Department of Agriculture and Consumer Services. This five-week training involved a combination of lectures, demonstrations and laboratory works covering a wide range of topics about Collembola taxonomy and systematics.

Date: April 9 to May 13, 2019

Venue: Florida State Collection of Arthropods, Museum of Entomology, Gainesville, Florida

Summary of Activities Conducted

Week 1
The first week of the training involved series of lectures from Dr. Felipe N. Soto-Adames on Springtail's morphology, taxonomy and biology. In between these lectures, checking of literatures available at the Department of Plant Industry coupled by specimen observations at FSCA were also done.

Week 2
Hands-on training on slide preparation started on the second week of the training. Several slides of springtails collected from Florida were prepared. Taxonomic keys provided by Christiansen and Bellinger (1984) were used to determine the species. Several characters of springtails crucial in identification were also highlighted while examining the slides prepared.

Weeks 3-4
Processing of specimens from the Philippines was initiated on the third week. Photographs were taken using the Zeiss dissecting microscope imaging system available at the laboratory of Dr. Soto-Adames. Photographs of some representatives of Philippine Collembola is shown in Figure 1. After taking photographs, two to six individuals were mounted on slides for further identification. Taking photographs and slide preparation lasted for two weeks. Identification of some specimens was also being done simultaneously using taxonomic keys available at www.collembola.org and several references available at DPI.

Week 5
Identification of all specimens up to the genus level was completed in the fifth week. At least 21 genera from eleven families of Collembola were identified. A summary of springtails taxa

identified is shown in Table 1. However, the identification to species level has not been completed as a result of too many specimens collected. Upon completion of identification, duplicates of all species will be deposited to the Florida State Collection of Arthropods.

Table 1. Summary of springtails taxa collected from Mt. Makiling, Philippines.

ORDER	FAMILY	*GENUS*	No. of morpho-species
Poduromorpha	Neanuridae	*Ceratrimeria*	1
		Neanura	2
	Hypogastruridae	*Xenylla*	1
Entomobryomorpha	Isotomidae	*Crypotopygus*	1
		Proisotoma	1
	Entomobryidae	*Entomobrya*	1
		Heteromurtrella	1
		Lepidocyrtus	8
		Lepidosira	1
		Seira	2
		Willowsia	2
	Paronellidae	*Bromacanthus*	1
		Callyntrura	3
		Lepidonella	1
		Salina	4
Neelipleona	Neelidae	*Neelus*	1
Symphypleona	Katiannidae	*Sminthurinus*	1
	Sminthuridae	*Sminthurus*	1
		Syphyrotheca	2
	Sminthurididae	*Unidentified*	2
TOTAL NO. OF MORPHO-SPECIES			**39**

Figure 1. Some representative springtails collected from Mt. Makiling, Philippines.

Marnelli P. Sotto-Alviola at FSCA, Gainesville, Florida