Friday, April 28, 2017 ORIGIN AND EVOLUTION OF LIFE: EVOLUTION/GENETICS: HOW DO SYMBIOSES ENABLE LIFE TO COLONIZE NEW HABITATS? 10:15 a.m. Arizona Ballroom E-G

Chairs: Gillian Gile

Stephanie Weldon

10:15 a.m. Taerum S. J. * Gile G. H.

<u>Lack of Congruence Between the Phylogenies of Zootermopsis Termites and Their Microbial Symbionts:</u>
Evidence of Horizontal Transmission? [#3581]

We analyzed the gut protist communities of Zootermopsis termites to test for host-microbe coevolution.

However, sequence data suggests horizontal transmission.

10:30 a.m. Crowther C. V. * Petersen K. D. Hayes M. A. Gile G. H.

<u>Dielectrophoretic Separation of the Symbiotic Protists Present in Termite Hindguts</u> [#3576]

Using a novel separation method, the symbiotic protists present in a termite's hindgut can be probed to better understand protists' ability to digest wood.

10:45 a.m. Gile G. H. *

Evolution and Transmission of Termite Hindgut Symbiotic Protozoa [#3510]

Termite wood digestion is enabled by a multi-domain microbial collaboration in which protists play a key role.

11:00 a.m. Giraldo Silva A. * Couradeau E. de Martini F. Garcia-Pichel F.

<u>The Cyanosphere: The Portable Microbiome of Microcoleus spp</u> [#3573]

We show the existence of a differentiated microbial community associated with M. vaginatus that could be key to the establishment of biocrusts in arid lands.

11:15 a.m. Weldon S. R. * Ladinsky M. S. McCutcheon J. P.

Swapping Partners Mid-Dance: Symbiotic Replacement in a Tightly Integrated Intrabacterial,

Intracellular Mutualism [#3526]

Bacteria lives inside a bacteria which lives inside an insect host bacteriocyte; innermost bacterium has been repeatedly replaced by free-living relatives.

11:30 a.m. Ravenscraft A. * Hunter M. S.

<u>Do Environmentally Acquired Burkholderia Symbionts Serve as a Reservoir of Local Adaptations for Their</u> Insect Hosts? [#3443]

I ask whether environmentally acquired symbionts are uniquely suited to adapt to and confer host tolerance to local environmental conditions.

11:45 a.m. Uehling J. * Dietrich F. Misztal P. Bonitio G. Goldstein A. Tschaplinski T. Labbe J.

Schadt C. Vilgalys R.

Elucidating Fungal Endosymbiont Interaction Mechanisms Between Mortierella Elongata and

Mycoavidus Cyste-Inexigens [#3115]

This project investigates origins, mechanisms, and evolution of long-term, trans-kingdom symbioses. Here we use omics to study bacteria living inside fungi.

12:00 p.m. Li F.-W. *

Genomic Perspectives on Plant-Cyanobacterium Symbiosis [#3061]

Here I will present how genomic data can help understanding the basis of plant-cyanobacterium symbiosis.

12:15 p.m. Lunch