



**TOURO COLLEGE &  
UNIVERSITY SYSTEM**

**Touro Scholar**

---

Lander College for Women - The Anna Ruth and  
Mark Hasten School Publications and Research

Lander College for Women – The Anna Ruth  
and Mark Hasten School

---

2015

## **Endophyte Growth on Two Species of Conifers on the Shawangunk Ridge, Mid-Hudson Valley, New York**

Hannah Valeruz

Michelle Hersh

Issa Friedlander

Cassidy Bernstein

Beryl Kahn

*See next page for additional authors*

Follow this and additional works at: [https://touro scholar.touro.edu/lcw\\_pubs](https://touro scholar.touro.edu/lcw_pubs)

 Part of the [Environmental Sciences Commons](#)

---

### **Recommended Citation**

Valeruz, H., Hersh, M., Friedlander, I., Bernstein, C., Kahn, B., & Feldman, H. R. (2015). Endophyte growth on two species of conifers on the Shawangunk Ridge, mid-Hudson Valley, New York. *Geological Society of America Abstracts with Programs*, 47(7), 726.

This Abstract is brought to you for free and open access by the Lander College for Women – The Anna Ruth and Mark Hasten School at Touro Scholar. It has been accepted for inclusion in Lander College for Women - The Anna Ruth and Mark Hasten School Publications and Research by an authorized administrator of Touro Scholar. For more information, please contact [touro.scholar@touro.edu](mailto:touro.scholar@touro.edu).

---

**Authors**

Hannah Valeruz, Michelle Hersh, Issa Friedlander, Cassidy Bernstein, Beryl Kahn, and Howard R. Feldman

# 2015 GSA Annual Meeting in Baltimore, Maryland, USA (1-4 November 2015)

Paper No. 288-26

Presentation Time: 9:00 AM-6:30 PM

## ENDOPHYTE GROWTH ON TWO SPECIES OF CONIFERS ON THE SHAWANGUNK RIDGE, MID-HUDSON VALLEY, NEW YORK

**VALERUZ, Hannah**<sup>1</sup>, HERSH, Michelle<sup>1</sup>, FRIEDLANDER, Issa<sup>1</sup>, BERNSTEIN, Cassidy<sup>1</sup>, KAHN, Beryl<sup>2</sup> and FELDMAN, Howard R.<sup>3</sup>, (1)Science, Sarah Lawrence College, 1 Mead Way, Bronxville, NY 10708, (2)Paleontology (Invertebrates), American Museum of Natural History, 79th Street at Central Park West, New York, NY 10024, (3)Biology Department, Touro College, 227 W. 60th Street, New York, NY 10023, [hvaleruz@gm.sl.c.edu](mailto:hvaleruz@gm.sl.c.edu)

The Middle Silurian Shawangunk Formation is underlain by the Upper Ordovician Martinsburg Formation in the mid-Hudson Valley. The Shawangunk Ridge is composed of a very resistant quartz pebble conglomerate whereas the Martinsburg consists of less resistant shales and graywackes. Endophytes are fungi growing asymptotically in plant tissues that are thought to act as a support system for the plant, protecting against desiccation and pathogens. We compared the diversity of endophytes colonizing two species of conifers, *Pinus strobus* and *Tsuga canadensis*, on two different substrates, conglomerate and shale. We hypothesized that there would be a marked difference in diversity between the two substrates, resulting in different microenvironments for the endophytes, since differences in diversity between species would occur if endophytes are host specific. We collected 7 individuals of each of the two conifer species along with pH readings of the soil at the base of the trees. Readings were taken at several sites on the Ridge last spring (2015). The needles of the specimens collected were surfaced sterilized and plated within 48 hours, then grown for 8 weeks on an agar plate. There was no difference in pH between the two substrates. To date, we have grown over 90 morphotypes of endophytes, including fungi from the genera *Cladosporium*, *Chaetomium*, *Alternaria*, *Lophodermium*, and *Phoma*. We expect to continue this project as we investigate endophyte growth on other genera such as *Quercus*, *Hamamelis* and *Acer*.

Session No. 288--Booth# 26

[Environmental Geoscience \(Posters\)](#)

Wednesday, 4 November 2015: 9:00 AM-6:30 PM

Exhibit Hall (Baltimore Convention Center)

Geological Society of America *Abstracts with Programs*. Vol. 47, No. 7, p.726

---

© Copyright 2015 The Geological Society of America (GSA), all rights reserved. Permission is hereby granted to the author(s) of this abstract to reproduce and distribute it freely, for noncommercial purposes. Permission is hereby granted to any individual scientist to download a single copy of this electronic file and reproduce up to 20 paper copies for noncommercial purposes advancing science and education, including classroom use, providing all reproductions include the complete content shown here, including the author information. All other forms of reproduction and/or transmittal are prohibited without written permission from GSA Copyright Permissions.

---