



Virginia Native Plant Society
2017 Workshop

Under Stories Small Communities and Secret Agents



March 4, 2017
9:15 a.m.–3:30 p.m.

University of Richmond
Jepson Hall Auditorium
Ryland Circle
(Online Campus Map #17)

Under Stories Small Communities and Secret Agents

Do plants rule the world? We plant people like to think of plants as the foundation of all other life and to understand the obvious ways they shape the world, using sunlight to synthesize food, producing oxygen, cycling nutrients, reducing air pollution, and stemming erosion. To our eyes plants are a source of beauty and wonder or, more practically, food and medicine.

But what subtle and equally significant organisms and interactions remain for us to discover? Mosses, forming a backdrop to many forest scenes, could be a lot more than a bump on a log (or a rock). What are lichens exactly, and how do we know that's what we are looking at? What are those fungi up to when they link up with plants underground? Those beautiful herbs on the forest floor: Are they dictators?

Some of the smallest or most beautiful members of natural communities have stories and powers that will surprise us. Join us in exploring these natural communities—and their lives under cover.

Logistics

The VNPS Workshop will be held at the University of Richmond.

Our venue is **Jepson Hall** (note that there are other buildings on campus named Jepson). Jepson Hall is located between Ryland Circle and Richmond Way. It is #17 on the online campus map (www.richmond.edu/visit/maps/print/parking.pdf)

For a printed copy of the map, please check the box on the registration form, and we'll send you one. Signs on campus will direct you to parking.

Morning refreshments and coffee will be provided.

Please bring your lunch. The university dining facilities will be closed for spring break.

Questions?

info@vnps.org
540-837-1600 (office)
703-434-0009 (day of event)
<http://www.richmond.edu/visit/maps/index.html>

VNPS thanks the University of Richmond for hosting this event.

Workshop Program

9:15 Registration and coffee

9:45 Nancy Vehrs, VNPS President

Welcome and introduction

10:00 John Townsend

Discovering Botany Anew: The World of Bryophytes

Mosses, liverworts, and hornworts are ubiquitous, beautiful, and vexing. Due to these plants' small size and the technical skills needed to learn them, most plant aficionados bypass this diverse group. This talk will chronicle my relatively recent fascination with bryophytes as well as my efforts to learn more about them and the places they inhabit. Learning about these species provides a new way of looking at habitat, landscapes, and our global flora.

11:00 Break

11:15 Manuela Dal Forno

The World of Lichens: Modern Concepts and Identification Characters

Lichens were long thought to be symbiotic associations of two (or, rarely, three) organisms, the fungal partner (mycobiont) and the photosynthesizing partner (photobiont, a green alga or a cyanobacterium). Recent research has shown, however, that lichens harbor diverse communities beyond the main partners. This presentation will provide an updated view on what lichens are and how to identify them.

12:15 Lunch

Please bring your own.

1:00 Mary Jane Epps

Lifting the Veil: A Hidden World of Plant–Fungal Interactions

From endophytes to mycorrhizae and beyond, plants engage in a multitude of hidden partnerships with fungi that shape our native flora in surprising ways. This talk will take us on a natural history tour of some of the remarkable plant–fungal interactions that make our Virginia flora what it is today.

2:00 Break

2:15 Jason E. Davis

Plant as Puppet Master: How Plants Hijack Animal Physiology to Rule the World

Plants are the behind-the-scenes rulers of the animal kingdom. Through some frankly amazing manipulations of our biochemistry, plants have evolved the ability to turn potential predators into servants. This talk will explore how plants can control what, when, and where we eat, make us carry their baggage, kill their competitors, and generally rule our lives.

Speakers

John Townsend is staff botanist with the Virginia Department of Conservation and Recreation's Division of Natural Heritage. His work as part of the division's inventory team has focused on rare vascular plants and their conservation. As a co-author of the *Flora of Virginia*, his role included editing taxonomic descriptions and illustrations and providing Virginia-specific information on status and habitat. He was previously herbarium curator at Clemson University and for many years has represented Natural Heritage on the VNPS board of directors.

Manuela Dal Forno is a postdoctoral research fellow at the Smithsonian Institution's National Museum of Natural History. She earned her M.S. in botany from the Universidade Federal do Paraná (Brazil) and her Ph.D. in environmental science and public policy from George Mason University. Her research focuses on lichens, addressing questions related to systematics, microbiomes, and genomics. She is investigating the hypothesis that lichen collections from herbaria can be used for assessing the original lichen bacterial microbiome associated with the lichen thallus when it was alive.

Mary Jane Epps is an assistant professor of biology at Mary Baldwin University, where she teaches botany and conservation biology. She earned her Ph.D. at the University of Arizona, after which she completed a postdoctoral fellowship in Rob Dunn's lab at North Carolina State University in 2015. As an ecologist with strong emphasis on natural history, in her research she explores a range of interactions between plants, fungi, and insects. Some of her projects include studies on the unusual pollination of native azaleas and on how fungal–insect interactions are influenced by climate change.

Jason Davis is an associate professor of biology at Radford University and a big believer in integrative biology. He holds B.S. degrees in biology and anthropology from the College of Charleston and a Ph.D. in neuroscience and animal behavior from Emory University. At Radford's ecophysiology research laboratory, he studies how organisms adjust to dynamic, often hostile environments. His work focuses on the neuroendocrine regulation of growth, development, and reproductive physiology in vertebrates and invertebrates and their modulation under varying environmental conditions. He is a frequent contributor to *Virginia Wildlife*.

Registration Form

Please register before February 28

Name _____

E-mail _____

Cell phone _____

Home phone _____

Address _____

City, State, Zip _____

Please mail me a campus map []

REGISTRATION FEES

_____ \$50 members

_____ \$80 nonmembers
(includes membership)

_____ \$15 full-time student
(have your ID with you)

_____ Donation to the
Virginia Native Plant Society

Make check payable to VNPS.

CREDIT CARD PAYMENT

Circle one: VISA MC AmEx Discover

Card # _____

Expiration date _____ CVV No. _____

Signature _____

Mail form and payment to
VNPS Annual Workshop
400 Blandy Farm Lane, #2
Boyce, VA 22620

