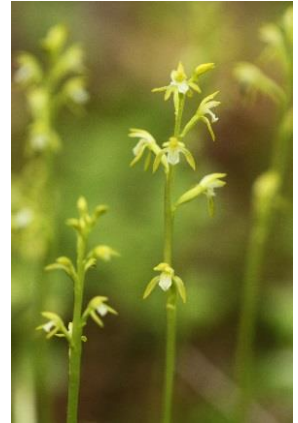




2016 – Year in Review

We are coming to the end of another year of ecological and cultural research in Columbia County and beyond. Several projects gave us the opportunity to expand the knowledge about plants and animals living on farms, in meadows, and in forests in our region. We also were invited to become actively involved in experimenting with the creation of semi-natural on-farm habitats and the monitoring of their impact, work that we hope to expand in future years.

Some of our cultural research continued to build on the food system work we completed several years ago and is designed to contribute towards the goal of increasing local access to fresh, healthy food, such as locally produced vegetables, fruits, dairy and meat.



The delicate orchid Early Coralroot has become rare in our landscape.



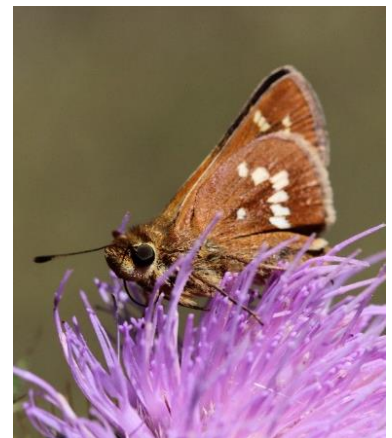
Exploring the insect life of a meadow during a public ecology walk.

Thanks to the generous program support from individuals and foundations, we were also able to continue work on our next book, to begin work on developing curriculum around phenology (the study of seasonal plant and animal cycles), and to maintain a rich offering of outreach and educational programs to share freely what we have learned and to help people develop their own informed, heartfelt connection to the land and its inhabitants.

Here are some of the Highlights:

Field Guide to the Habitats of Columbia County

During last winter, we made good progress on the analysis of the rich data which are at the core of the *Ecological and Cultural Field Guide to the Habitats of Columbia County*, found a format that is inviting and engaging, yet information-rich, and, with the help of Ron Toelke, developed a beautiful design. We are excited to be working with an experienced book designer to help us share the information in the most pleasing and useful way. We anticipate dedicating much of the winter months to continuing work on the manuscript.



Leonard Skipper is a rarely seen butterfly in our County. It inhabits dry open places where Little Bluestem grows and only flies for a couple of weeks in late summer.

Biodiversity/Natural Resource Inventories

As soon as the field season began, our attention was drawn to biodiversity inventories we conducted at several public places and farms in Columbia County and beyond. We worked with the Columbia Land Conservancy (Harris Property, Scotland Farm, and the Greenport Conservation Area, the latter two in collaboration with Hudsonia Ltd.), Scenic Hudson (Poet's Walk, Almstead, and Dansky Properties), Armonia Ltd. (Breathe Deep Farm), the Local Economies Project (Hudson Valley Farm Hub) and the Conservation Advisory Council of the Town of New Lebanon (again, in collaboration with Hudsonia Ltd.). These projects allowed us to expand our local databases of the distribution of plants and animals. Thanks to the dedicated work of technician Dylan Cipkowski, we now have the beginnings of a list of moths of Columbia County, and thanks to summer intern Liam Henrie, we are starting to unravel the mysteries of identifying the multitude of wasp species.

Farmscape Ecology

In collaboration with the Hudson Valley Farm Hub in Ulster County, we have been devising standardized ways of assessing the abundance and activity of various organisms on farms. We conducted intensive in-field monitoring this past summer, trying to not only index various beneficial insects (such as bees, ground beetles and wasps), but also to nose into the lives of terrestrial and flying small mammals (aka bats). All these organisms can, for better or worse, influence farm production and yet also represent biodiversity in their own right.



Aside from 'passively' monitoring these creatures in relation to farm management, we are also, in collaboration with Xerces (the National Society for Insect Conservation), laying the ground work for testing land-management techniques for enhancing the populations and activities of beneficial groups. In future years, we hope to expand this research and subsequent outreach to farms in Columbia County and elsewhere in the Hudson Valley.

A tiny ground beetle Harpalus pensylvanicus is busily eating weed seeds in a field at the Hudson Valley Farm Hub.



Technician Dylan Cipkowski and intern Liam Henrie are inventorying a meadow at Scotland Farm.



The Luna Moth is one of our largest and best known moths. But many of the smaller moths have similarly stunning shapes and colors.

Food Access

Our cultural research has been focused recently on a collaborative county-wide food access project funded through a grant from the Berkshire Taconic Community Foundation. In collaboration with other departments at Hawthorne Valley as well as Long Table Harvest, a new gleaning organization in the County, we have been part of facilitating and convening a group focused on researching and improving the food access situation in Hudson as well as a newly formed Columbia County Food Association focused on addressing issues of food access, farm viability and land use throughout the County. We have been doing research to explore the needs and capacities of different parts of our county's food system, and will also be facilitating two rural communities beginning to address food access needs through this project.

Phenology

We have established three phenology trails at Hawthorne Valley Farm and, with the dedicated help of intern Rory Schiafo, monitored the timing of the phenological phases (e.g., leaves unfolding, flowering, ripe fruit, leaf coloration, and leaf fall) of 70 individually marked woody and herbaceous plants for almost an entire year. This effort is part of a nation-wide citizen science network, the USA National Phenology Network, and contributes data to a large database. Last spring we involved elementary students at Hawthorne Valley in the project of monitoring the phenological changes, and this year we look forward to building a more comprehensive phenology curriculum for high school students that enables exploration of climate and land use change through the comparison of historic and modern phenological observations. This fall we will be attending the Northeast Regional Phenology Network meeting and hopefully connecting with other phenology researchers and educators.



The nation-wide declining Bobolinks return every spring to nest in the hayfields of Hawthorne Valley Farm.



Intern Rory Schiafo is carefully observing phenological changes in a Leatherwood bush.

Outreach and Educational Programming

We led 15 very well-attended public ecology walks to destinations throughout Columbia County and guided a variety of customized walks and field experiences, including for farm apprentices, Latino farm workers, students (from 5th grade to university), members of a town's Conservation Advisory Council, a garden club, and the general public. We also have shared aspects of our work in more formal settings, including presentations at the Northeast Natural History Conference, the Lenox Garden Club, Plantin' Seeds, a Harvard Forest grazing and conservation seminar, and a Xerces' workshop on conservation biological control.

During their visit here to Hawthorne Valley, we introduced students in Columbia University's undergraduate Agro/Food Systems to some of our research techniques and findings.

We continued to share our field observations through Facebook and blog postings and host monthly open houses to provide a space for informal personal interactions and conversations about our work. Throughout the year, we have also fielded many natural history questions and served as advisors to individuals and groups.



Young visitors to the Hawthorne Valley Farm Fall Festival are fascinated by our collection of skulls and eager to share their knowledge of local animals.



Students from Columbia University get introduced to farmscape ecology in the vegetable fields of Hawthorne Valley Farm.

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