The Vermont Master Naturalist Mad River Valley Program

Advancing conservation, building community, and connecting Vermonters to the wild heart of place

Vision: The Vermont Master Naturalist Mad River Valley (VMNMRV) seeks to build a community of neighbors with a deep interest in nature who together learn to better understand and "read" the Mad River Valley (MRV) landscape. The Vermont Master Naturalist Program (VMN) advances conservation, builds community, and connects Vermonters to the wild heart of place through professional training and local volunteer projects. VMN is partnering with Friends of the Mad River and the Vermont Alliance for Half Earth to bring this state-of-the-art nature programing to the Valley for the first time in 2020.

The Mad River watershed has a rich natural heritage with habitat ranging from montane forests to dry oak hilltops & spruce swamps. The Valley's geologic and human history give rise to many natural communities - each with a diverse suite of plants and wildlife. Bobcats, coyotes, otters, beavers, bear, deer, and foxes live in the Valley.

This program connects Valley citizens to the nature of towns through professional training and volunteer projects. The Mad River Valley benefits long-term from a community of naturalists acting as a creative brain trust for solving ecological issues facing our wild lands and serving as expert resources for conservation education in our schools and communities.

Who: Each class consists of residents with a sustained interest in at least one natural history discipline (e.g. birding, geology, wildlife tracking, and botany). VMN was created for communities by Alicia Daniel in 2016, modeled after her landscape-level teaching in the UVM Field Naturalist Master of Science program. Alicia and other regional and local experts will lead the training for the candidates.

How: Through a series of field trips to key natural areas, VMNMRV candidates will explore the processes that shape a landscape and learn a timescale for the major events that have created the landscapes seen in the Valley today. Participants will spend time in these areas reviewing the geology, soils, plants and animals (natural communities), human land use history, and signs of processes like wind, fire, or deer browse. We will also discuss relevant conservation history and management issues. While the focus of the training will be on the exchange of information, participants are invited to enter each of these places with an open heart, enjoying the beauty and a connection to nature that draws the group together. In addition, each Master Naturalist candidate will have an outside practice designed to deepen his or her naturalist skills of observation and description, including spending time at a sit spot, sketching, photographing, and more.

Cover photos by: C.H. Diegel, Amy Todisco, Brad Long, Corrie Miller (top to bottom, left to right)

Training Program

Welcome! This field training is designed to provide you with specific training in the Mad River Valley's natural history across the earth, life, and social sciences so that you can understand and "read" the local landscapes and assist with the implementation of conservation education and stewardship initiatives. This approach involves an understanding of the pieces, patterns, and processes that shape the natural world. We will spend time at carefully selected sites throughout the Valley reviewing the geology, soils, plants and animals, human land use history, and signs of processes like wind, fire, or deer browse. We will also cover key conservation issues for each site. While the field trips will focus on the exchange of information between the field trip leaders and between participants, we invite you to enter each of these places with an open heart, enjoying the beauty and connection to nature that has drawn us together.

Program Goals:

1. Learn a framework for understanding the geology, glacial geomorphology, soils, plants, and wildlife of the Valley's wild lands.
2. Learn to identify patterns created by human and natural "disturbance," including logging, fire, and agriculture, and by environmental gradients, such as those associated with elevation, soil moisture, pH, substrate particle size, and age.
3. Discuss the processes that shape a landscape and learn a timescale for the major events that have created the landscapes we see in the Valley today.
4. Learn about biodiversity and how it creates healthy, adaptable ecosystems.
5. Understand key aspects of the cultural history of the Valley.
6. Create a volunteer project that allows you to successfully engage with the Valley's community around conservation education and/or management of open space.
7. Meet people who work as professionals in the field.
8. Enjoy spending the day outdoors.

Requirements:

1. **Attendance:** It is impossible to "make up" missed field time as each day is a unique experience packed full of rich material. Please do not miss a training day without a very compelling reason. If you find it impossible to attend one of the trainings, please contact us about how to make up work to complete the VMNMRV Program.

2. **Readings:** There will be some brief assigned readings ahead of some field sessions, as well as additional suggested readings. Here are some books to get you started:

    a. *Reading the Forested Landscape* by Tom Wessels. This book will help you to read the history of land use and landscape change at the sites we visit on our field trips.
    b. *Wetland, Woodland, Wildland: A Guide to the Natural Communities of Vermont* by Liz Thompson, Eric Sorenson & Bob Zaino. This book describes the natural communities of Vermont and the common associations of plants that we will see around the Valley. It's a great reference guide. Consider the newest edition, published in 2019.

c. *Nature's Best Hope: A New Approach to Conservation That Starts in Your Yard* by Doug Tallamy. This book explains the importance of providing native plant habitat for caterpillars, pollinators, birds and more to sustain biodiversity in an age of climate change.
d. *Half Earth: Our Planet's Fight for Life* by E.O. Wilson. A visionary way to approach conservation from the whole world to our own backyards.

3. **Field Journal:** Please record your natural history experiences in a field journal. In addition to whatever you else choose to record, please record the following:

    - **Site Reviews**: You are encouraged to write a site review after each field trip. A successful review will capture the big story and include lots of specific details (i.e. soil pH, plants, etc.) Write these as if you want to go back and read them a year later to understand and share the story of the site.
    - **Solo Time at Sit Spot:** Find a wild place that is easy to get to and spend at least 30 minutes every month exploring and sitting at your site observing nature (every week would be even better!) Write down what you experience there.

4. **Volunteer Project:** In early summer you will be given a choice of projects and design a team project to engage with a community partner for a total of at least 20 hours. These self-selected volunteer projects will be created in collaboration with the program coordinator, local schools and conservation organizations.

5. **Field Walks & Talks:** Candidates are asked to enhance their natural history studies by attending 3 or more public walks or talks during the year. Relevant opportunities will be shared amongst the candidates. The Vermont Master Naturalist candidates are also encouraged to organize their own supplementary outings in the months between official training dates. These could count towards the field walk requirement.

Website: www.vermontmasternaturalist.org/

Also please use the Vermont Master Naturalist Resource Library to enhance your training: https://vermontmasternaturalist.org/resouces/ Feel free to make suggestions of additional resources we could add to this page.

To develop intimacy with people it is necessary to understand their history; the same holds true for developing an intimate relationship with place.

-Tom Wessels, 2012

Schedule of Training Dates & Sites:

Trainings are all scheduled on four Sundays and one Saturday from 10am to 4pm.

March 15: Geology, Winter Ecology & Wildlife Tracking (Alicia Daniel, Dave Muska, and Sean Lawson)

May 16 (Saturday): Glacial History, Soils & Wildflowers (Sean Beckett)

June 14: A Dynamic Mad River & Watershed (Kristen Underwood, George Springston, and Jon Kim)

September 13: Land Use History & Forest Forensics (Jane Dorney)

October 18: A Celebration of Fall, MRV Conservation Successes, & Graduates

Volunteer Contract: In addition to completion of the 30 hours of field day training, VMNSB candidates will carry out team projects to engage with community organization, conservation groups or schools totaling at least 20 hours per person. These self-selected volunteer projects will be created in collaboration with the program coordinator, schools and local conservation organizations, with the goal to address specific needs in conservation education and nature stewardship in the Valley. Upon completion of the program, Master Naturalists will continue to serve in an advisory capacity for as long as they choose and will receive ongoing advice and support for their naturalist practices and activities.

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Vermont Master Naturalist Partners

Alicia Daniel has followed her love of nature across the continent from tracking black bears in Alaska to surveying bat caves in Texas to seeing an *arribada* of Olive Ridley sea turtles on a moonlit beach in Costa Rica. Exploring her Vermont backyard with VMN naturalists is a dream come true.

"Walking through the forest without knowing how to read the landscape is like walking through a library without knowing how to read a book. Once you start to read the landscape it captures your imagination and opens up a whole new world," she says. Places record their histories in rock formations and soil horizons, in tree rings and cut stumps, in stonewalls and cellar holes, deer browse and beaver chew. For the past 25 years at UVM, Alicia Daniel has guided students as they solve forest mysteries and record their findings in maps, field notes, poems, and sketches.

Forest ecologist Tom Wessels writes, "To develop intimacy with people it is necessary to understand their history; the same holds true for developing an intimate relationship with place." Through her teaching Alicia helps people cultivate an intimate understanding of the natural world. In addition to being the Executive Director of Vermont Master Naturalist, Alicia is also the Field Naturalist for the City of Burlington working at BPRW in conservation education, reforestation, and managing forested parks for wildlife and plant diversity.

Curt Lindberg is a relatively new resident of Vermont. He lives in Waitsfield with his wife Claire in a new passive certified house built by his son. His interest in nature and its protection stems from time outdoors and his doctoral study of complex systems. Since moving to the state, he's devoted himself to learning about unique features of nature in Vermont, connecting with naturalists and leaders of conservation organizations and exploring the land. As a result of an amazingly rich learning experience in the Vermont Master Naturalist Upper Winooski Watershed Program, he offered to help bring VMN to the Mad River Valley. His other nature related priority is introducing E. O. Wilson's Half-Earth Project to the state and facilitating the creation and activities of the Vermont Alliance for Half-Earth.

A nature highlight from Fall 2019 was a Saw-whet Owl banding experience at North Branch Nature Center shared with his granddaughter Maddie, and daughter Kristen. After the event Maddie declared she wanted to be a naturalist!

Corrie Miller hails from Virginia's Shenandoah Valley where she watched housing developments and strip malls replace the landscapes of her youth. Seeing the community's character entirely changed by this landscape transformation motivates Corrie's career. Dedicated to conserving the natural resources which are the fabric of our vibrant communities, Corrie is inspired working in communities to build coalitions for change. Corrie holds an undergraduate biology degree from Vanderbilt University and a Masters of Science degree from University of Vermont's Field Naturalist Program.

Corrie has a weakness for all things bread, butter, and sugar. She is prone to uncontrollable hysterics of laughter and most enjoys being outdoors in the Fayston woods, sometimes on skis. Corrie lives in the Shepard Brook subwatershed.