

# Advanced Natural Resources Inventory



©TOM ROGERS

**W**hile we hope that your community has found useful information in the seven maps provided, we also recognize that every town in Vermont has a different set of values and a different landscape. Maps 1 through 7 have been created at the state level, and they feature data available across the state. On your local landscape, there may be additional components that contribute to the ecological story—the habitat of a species of interest, perhaps, or cultural features. Also, many of the datasets available across the state were created through the interpretation of aerial photos or other remote means. They have not been

## A Local Inventory: Where Do You Begin?

Each town has a unique set of needs and desires, but one of the biggest “bangs for your buck” may come from identifying natural communities across your town. This can be used to identify many components of wildlife habitat and other landscape features.

**Natural Community:** an interacting assemblage of plants and animals, their physical environment, and the natural processes that affect them. For example, the most common natural community type in Vermont is the northern hardwood forest.

checked in the field, and some datasets omit important features.

As a community, you may want to think carefully about what information will most help you with your efforts, and then make sure the data you use are accurate to an appropriate scale. If you are most interested in landscape-scale conservation regarding forest fragmentation, habitat connectivity and climate resilience, for example, the data provided in this guide are likely sufficient, and an inventory is unlikely to reveal anything appreciably different. However, if your goals involve individual species or natural communities, it may well be worthwhile to invest in an inventory. The information provided on state-level maps of grasslands and shrublands, the functional extent of riparian areas, vernal pools, deer wintering areas, rare and uncommon species, wildlife road crossings, and mast stands are not comprehensive. A local inventory is much more likely to add to your understanding of these components. When determining implementation measures, we suggest that you begin at the landscape level and then learn more about these finer-scaled features.

That said, many communities could benefit from local inventory data. Collecting these data does generally come with a price tag, however, since it involves on-the-ground fieldwork and advanced computer analysis. While some field data can be gathered by volunteers with minimal professional

guidance, other information is best collected by (or under the close supervision of) a natural resources professional. Towns may therefore want to start by prioritizing what additional information is needed. Even if it takes several years to collect the new information, it is generally a worthwhile effort; the reward is better planning for the future.

The following is a list of ideas (by no means exhaustive) of projects a town might undertake to get a better sense of what resources are present. A detailed inventory could include:

- ▶ Natural community mapping
- ▶ Water quality studies
- ▶ Wetland mapping
- ▶ Significant wildlife habitat assessment
- ▶ Agricultural lands assessment
- ▶ Managed forest lands inventory
- ▶ Undeveloped shorelines inventory
- ▶ Cultural features inventory (e.g., archaeological and historic sites, recreation areas, scenic areas, designated scenic roads)
- ▶ Unique geological resources mapping

In addition to the above, consider field-checking the map information from the Inventory Maps of this guide, considering questions such as: Do the streams

in your town have fully functioning riparian areas? Which road crossing areas are most commonly used by wildlife? Are there current threats facing these important [wildlife road crossing](#) areas?

As you undertake your inventory, remember that while some landscape elements are not static, a map can depict only a snapshot in time. Development of a new building site may change the size of a [habitat block](#), and land use and land cover of a given location change routinely due not only to human alterations but also because of natural [succession](#) as forests grow up and mature over time. In addition to seeking updates on BioFinder, inventories that you undertake in your community may also benefit from routine repetition. In some cases, the success of a planning goal even necessitates a map update! For example, if you implement strategies to restore or enhance riparian habitat, success may require that you update your riparian habitat map on a routine basis. Each map can then become a tool that helps you track progress.

Ultimately, it will be up to your town to decide which information is most important to you. It is by combining your knowledge of the local natural resources with your town's own goals and interests that you will be able to create a natural resource plan that you are able to successfully implement within your community.

### Starting with Citizen Science

As you decide what data you need, it may be appropriate to use local, regional, or even national citizen science efforts to inform your planning. For example, the [Vermont Center for Ecostudies](#) maintains a Vermont Atlas of Life, in which citizens contribute sightings of birds (e-bird), butterflies (e-butterfly), and any species (inaturalist) to three separate map databases. Some towns conduct bioblitzes or other projects to recruit scientists and citizens to gather information about local biodiversity.

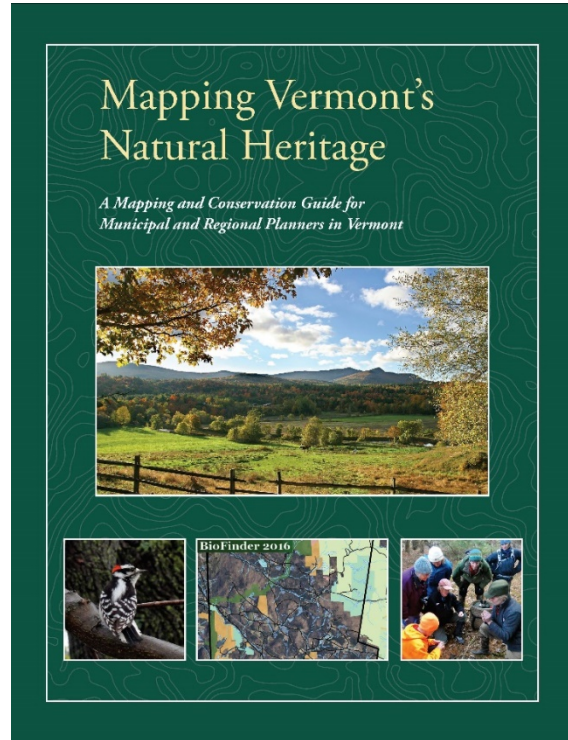
However, using citizen science data to inform the town planning or regulatory process needs to be done carefully. Often, several years of data are needed to ensure accuracy, and all data and methodologies should be reviewed by a professional before inclusion.



©TOM ROGERS

# Mapping Vermont's Natural Heritage

This is one chapter of a larger publication called *Mapping Vermont's Natural Heritage: A Mapping and Conservation Guide for Municipal and Regional Planners in Vermont*. Please visit <https://anr.vermont.gov/node/986> for additional information or to see the entire guide.



## Authors:

Monica Przyperhart, Fish & Wildlife Specialist  
Jens Hawkins-Hilke, Conservation Planner  
John M. Austin, Wildlife Biologist

Published by Vermont Fish & Wildlife Department, Agency of Natural Resources

Copyright 2018

All rights reserved

Printed in the United States of America 5 4 3 2 1

ISBN: 978-0-9772517-4-2

Check [www.vtfishandwildlife.com](http://www.vtfishandwildlife.com) for updates

Produced by Lilla Stutz-Lumbra, Vermont Fish & Wildlife Department

Printed by Leahy Press, Inc., Montpelier, Vermont

Cover Photos: (large image) Dennis Curran - VT Department of Tourism and Marketing

(small images) Monica Przyperhart

