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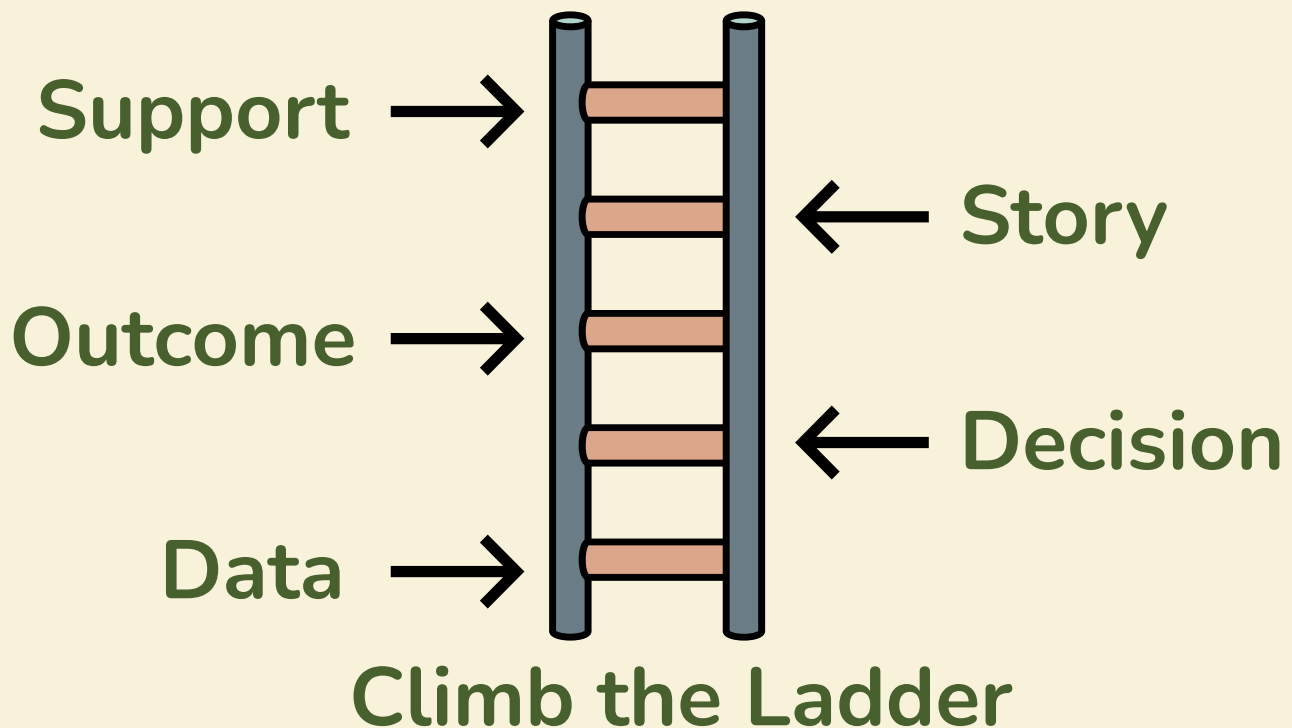
INVESTIGATING FOR IMPACT: HOW RESEARCH STRENGTHENS LAND TRUST STEWARDSHIP THROUGHOUT CONNECTICUT

INTRODUCTION

Investigations help land trusts demonstrate their relevance by turning uncertainty into evidence-based action. The investigation may draw from ecology, hydrology, forestry, soil science, history, social science, economics, education, or other fields—whatever best helps the organization understand a question and respond effectively.

Whether the issue involves wildlife, water, forests, trails, visitors, or community needs, investigation strengthens an organization's ability to make informed decisions, explain why those decisions matter, and show donors and the public that conservation work is active, adaptive, and responsive.

This progression can be understood as a Relevance Ladder:

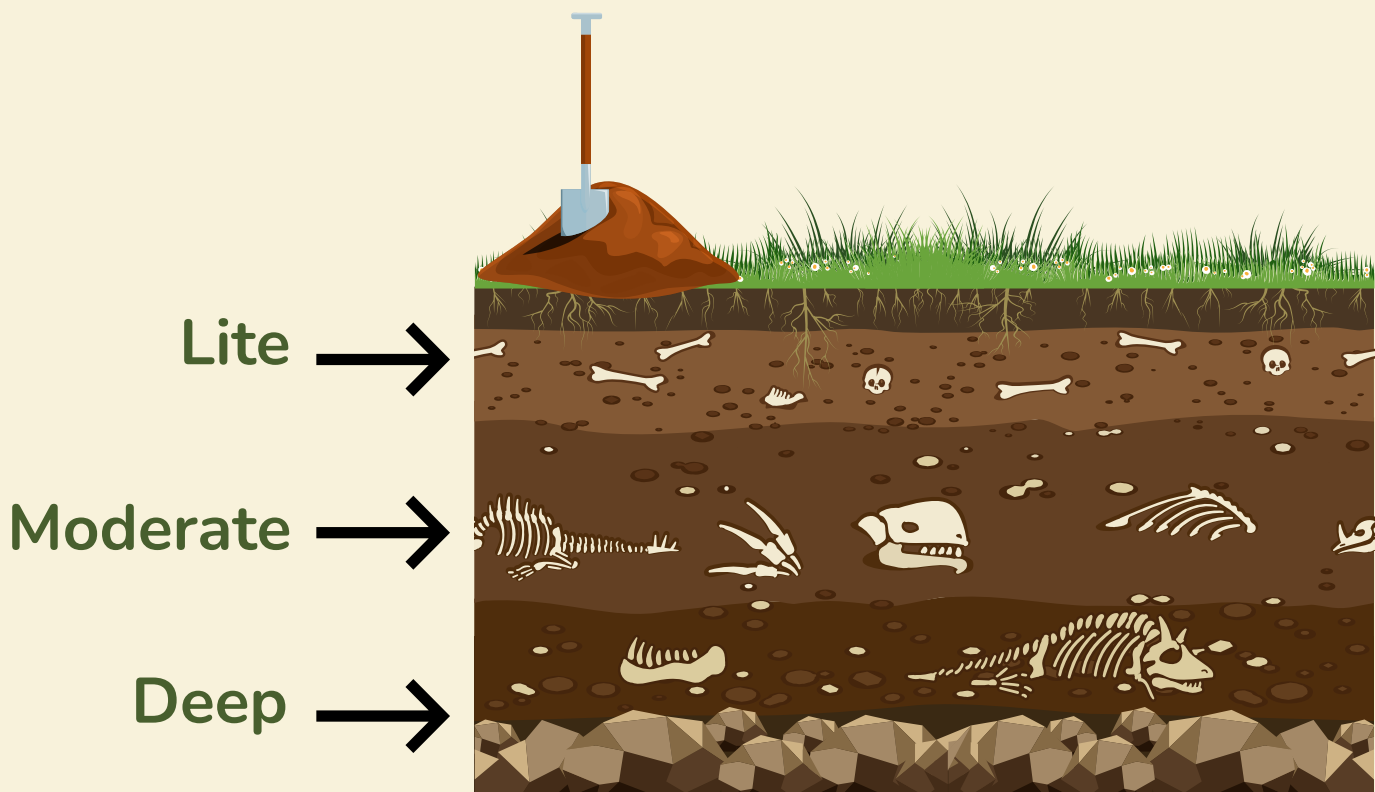


In other words, information gathered through investigation leads to better decisions; better decisions produce visible outcomes; outcomes create compelling stories; and those stories build trust, partnerships, and financial support.

MAKE IT DOABLE: THREE COMMITMENT LEVELS

Land trusts can pursue research-driven stewardship at different levels depending on their capacity, priorities, and partnerships.

A useful way to think about this is through three commitment levels:



Deeper investigations reflect increasing investment in time, coordination, and technical complexity. Each level can produce valuable insights. **The goal is not to begin with the most ambitious project**, but to choose an approach that matches the organization's readiness while still generating information that can guide stewardship, strengthen operations, and build community relevance.

MAKE IT DOABLE: THREE COMMITMENT LEVELS

Lite commitment projects are small, low-cost, and easy to start, often requiring only a volunteer leader, a staff liaison, or a small group of partners. These projects usually focus on observation, documentation, or simple data collection and can often be completed in a day or over a short season. Examples include trail-erosion hotspot mapping, photo-point monitoring, mini-BioBlitz events, visitor intercept surveys, or simple wildlife observations. Common collaborators may include volunteers, local naturalists, community scientists, high school classes, or conservation commission members.

Moderate commitment projects require more planning, repeated field effort, and some outside expertise, but they are still manageable for many land trusts with partner support. These investigations often help answer practical stewardship or operational questions over the course of a season or semester. Examples include bird or bat acoustic surveys, shoreline buffer effectiveness studies, trail-counter and visitor-use projects, eDNA sampling, or pollinator monitoring. Common collaborators may include college classes, university students, agency staff, nonprofit partners, or consultants working on a limited scope.

Deep commitment projects involve sustained investment, stronger institutional partnerships, and a longer time horizon, often extending across multiple seasons or years. These investigations are best suited for questions that require experimental design, long-term monitoring, or more specialized methods. Examples include deer browse enclosure studies, meadow management experiments, carbon baseline inventories, long-term forest monitoring, or regional wildlife movement studies. Common collaborators may include university faculty and graduate students, government agencies, research labs, technical consultants, and funders willing to support equipment, analysis, or multi-year coordination.

START WITH THE RIGHT QUESTIONS

The questions in this section are designed to help land trusts organize their thinking about how and why they might pursue research on their properties. Rather than starting with methods or technical details, these prompts encourage landowners and stewards to begin with their broader stewardship concerns, operational needs, and community goals. Land trusts can identify practical, mission-driven investigation pathways appropriate to their capacity by asking clear questions about: **1) what they want to learn, 2) what decisions the information could inform, 3) what level of effort is realistic, and 4) who might help.** In this way, the questions guide curiosity and uncertainty into purposeful, research-driven stewardship.

Ingredients

- What keeps your board up at night? (list 3–5)
- Which parcel/amenity is affected?
- What would change if you knew X? (decision trigger)
- What's the lowest-impact way to learn it? (method)
- Who can help? (school, agency, NGO, fee-for-service consultant)
- What will we deliver and by when? (report, 500-word summary, 1–3 photos)
- How will we tell the story to members/donors?

NEW RECIPE

Recipe directions:



- Mix your questions together to create a clear picture of what you want to learn and why it matters.
- Add the people, partners, and tools that can help, then choose a method that fits your land trust's time and capacity.
- Let it simmer into a simple plan, and enjoy turning curiosity into discovery, stewardship, and a story worth sharing.

ACCESSIBLE, FREE TOOLS TO SUPPORT INVESTIGATION

Land trusts do not need to begin with expensive equipment or highly specialized software. A growing number of free or free-to-use digital tools can help organizations document biodiversity, track seasonal change, record bird observations, identify species, and report invasive species. These tools are especially useful because they allow staff, volunteers, students, and community scientists to contribute observations in ways that can support stewardship decisions, public engagement, and long-term learning.



iNaturalist is one of the most flexible starting points because it is taxon-agnostic and can be used to document plants, insects, fungi, amphibians, reptiles, birds, and mammals. It allows users to upload photo- or sound-based observations that contribute to a broader biodiversity record, making it useful for BioBlitzes, baseline species inventories, and community engagement. Seek by iNaturalist is a related app that is especially approachable for beginners and families because it helps users identify organisms in the field and encourages nature exploration.



eBird is especially valuable for land trusts interested in birds as indicators of habitat condition, migration use, or seasonal change. Cornell describes eBird as a free tool that turns bird observations into a growing scientific resource through user-submitted checklists documenting species presence and abundance.

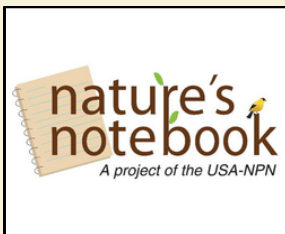


For trusts that want a simple entry point, **Merlin Bird ID** is a free companion app that helps people identify birds by sight and sound, making it a strong outreach and volunteer-training tool as well as a gateway into more structured bird monitoring.

ACCESSIBLE, FREE TOOLS TO SUPPORT INVESTIGATION



For invasive-species work, **EDDMapS** offers a free, web-based mapping and reporting system that helps users document the distribution of invasive species and pests in the United States and Canada. This can be especially useful for land trusts that want to involve volunteers in early detection, create a record of management concerns, or contribute information to regional networks of expert verifiers.



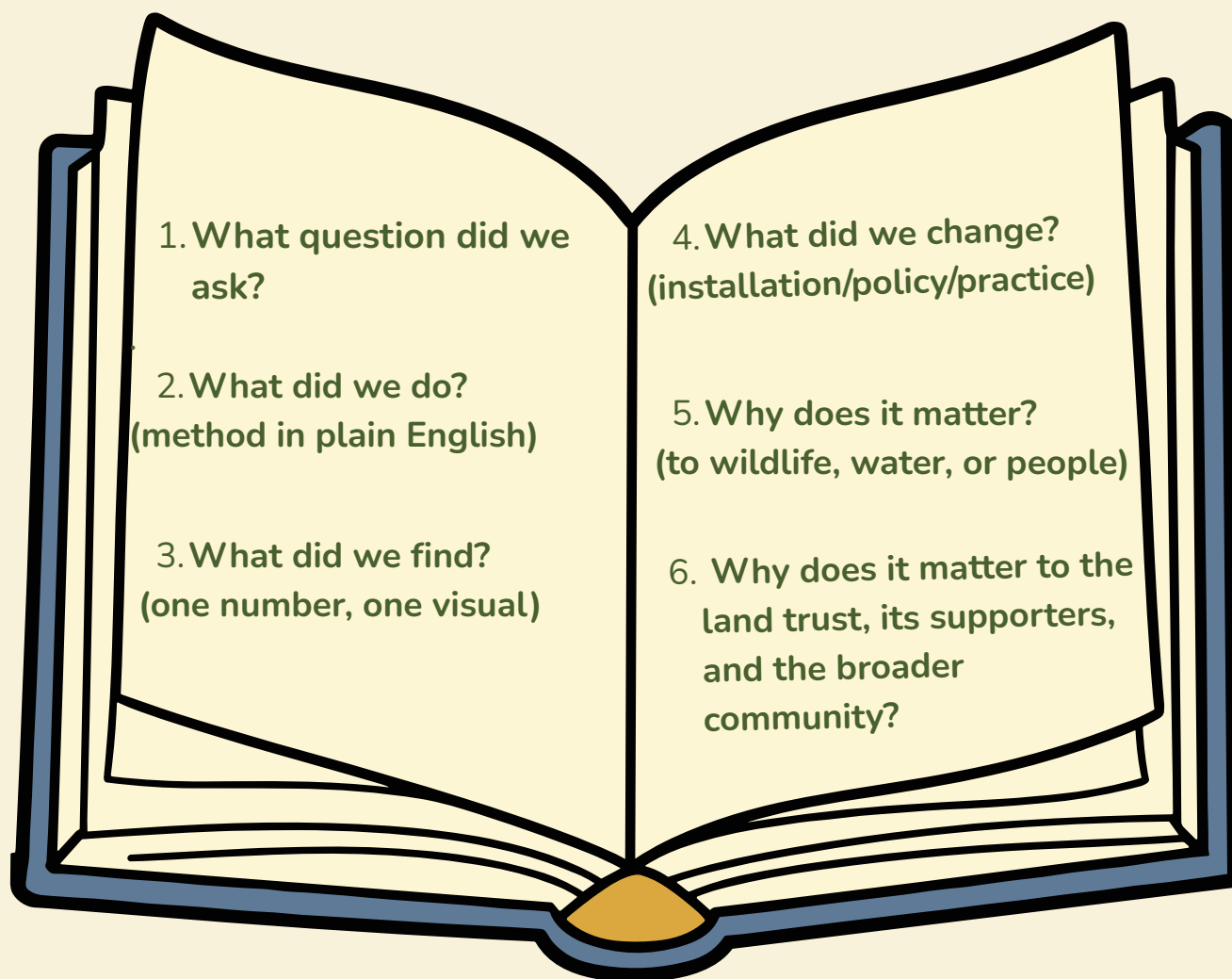
For organizations interested in climate, phenology, and seasonal change, **Nature's Notebook** from the USA National Phenology Network provides a structured way for individuals and groups to record plant and animal life stages over time. USA-NPN notes that these observations are used by resource managers, educators, scientists, and the public, making the tool especially helpful for land trusts that want to connect stewardship, climate awareness, and repeatable monitoring.

A practical way to think about these tools is to match them to the kind of question being asked. If the goal is a broad inventory or public engagement, iNaturalist may be the best fit. If the focus is birds, eBird and Merlin are strong options. If the priority is invasive-species detection, EDDMapS may be most useful. If the question involves seasonal timing and climate response, Nature's Notebook can provide a more structured monitoring pathway.

Used thoughtfully, the array of free tools available can help land trusts begin investigating their properties in ways that are accessible, credible, and engaging.

TURN RESULTS INTO SUPPORT “TELLING THE STORY”

Land trusts can tell the story of research most effectively by translating technical work into a simple narrative that connects investigation to stewardship and community value. These questions help turn raw information into a clear and compelling account of how research strengthens decision-making, improves management, and demonstrates the organization’s relevance. When presented in this way, research becomes more than a report; it becomes a story about learning, action, and impact.

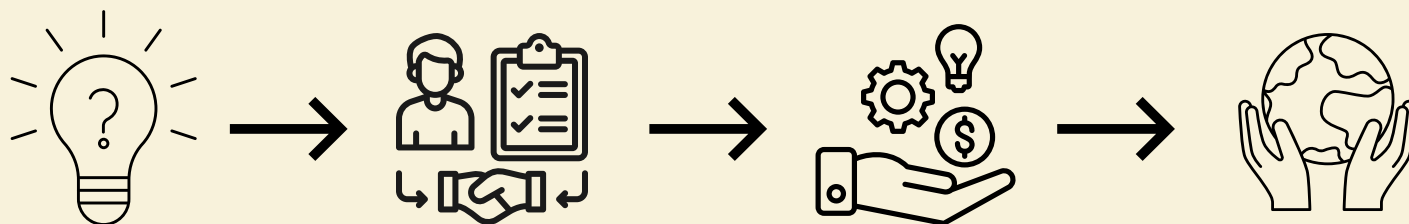


This becomes a slide, a web post, and a donor thank-you insert!

WHAT BOARDS AND DONORS MEASURE

Boards and donors are usually less interested in research as an isolated technical exercise than in what the research helps the land trust understand, improve, and accomplish.

What makes research relevant to them is its ability to show that the organization is asking important questions, making informed decisions, using resources wisely, and adapting its stewardship in ways that produce visible benefits for land, water, wildlife, and people.



Research-driven stewardship also strengthens a land trust's broader capacity by providing data that can support grant applications, management plans, fundraising appeals, public education, and partnerships with agencies, schools, and other organizations.

Just as importantly, the way a land trust studies and cares for the properties it already protects can shape public confidence in the organization. Potential donors, including landowners considering a future conservation gift, often look closely at how well a land trust stewards its conserved lands before deciding whether to invest money, time, or even land in its future.



POTENTIAL ADVISORS AND TECHNICAL PARTNERS

Land trusts do not need to design research projects alone. In Connecticut, several public agencies, universities, and service organizations can help land trusts refine questions, identify practical methods, understand site constraints, and connect projects to stewardship goals.



- The **Connecticut Land Conservation Council (CLCC)** is a logical first stop because it exists to support Connecticut's land trusts through technical assistance, education, training, and peer learning. CLCC also maintains a service-provider network that can help trusts identify outside expertise for stewardship and planning needs.



- For projects involving habitat, rare species, forestry, or sensitive natural communities, land trusts may benefit from speaking with the **Connecticut Department of Energy and Environmental Protection (CT DEEP)**. DEEP's Wildlife Division notes that staff can assess potential projects, provide technical advice, and identify funding opportunities for suitable habitat work on private lands. DEEP's forestry staff also offer technical assistance on topics such as forest stewardship planning, invasive species management, wildlife habitat enhancement, mapping, forest health, and climate-smart forestry. For projects that may affect listed species or important natural communities, the **Natural Diversity Data Base (NDDB)** review process is an important early step.



- The **Connecticut Agricultural Experiment Station (CAES)** can be especially helpful when a project touches invasive species, plant ecology, environmental quality, or applied field research. CAES states that its central mission is research and the transfer of findings to people trying to solve agricultural, public health, and environmental problems. Its **Office of Aquatic Invasive Species** is particularly relevant for lake and pond properties because it surveys aquatic vegetation and tracks the spread and ecological effects of invasive aquatic plants.

POTENTIAL ADVISORS AND TECHNICAL PARTNERS



- For projects that need mapping, land-use analysis, climate or water-resource framing, or public-engagement design, **UConn Extension, UConn CLEAR**, and related university programs can be valuable partners. UConn Extension describes its role as working alongside residents, landowners, and local leaders through education and solutions grounded in local needs. CLEAR is a partnership involving UConn Extension, Natural Resources and the Environment, and Connecticut Sea Grant, and its work is closely tied to land use, natural resource protection, and geospatial tools.



- **The Natural Resources Conservation Academy (NRCA)** can also be a useful bridge to student and faculty expertise, particularly for community-based projects involving water, land use, climate, education, and geospatial technology.



- For forest, farmland, grassland, wetland, and soil- or water-related stewardship questions, the **USDA Natural Resources Conservation Service (NRCS)** is another strong partner. NRCS provides free conservation technical assistance, including resource assessment, practice design, monitoring, and conservation planning, and encourages landowners to start by speaking with a local conservation planner.

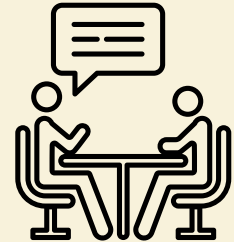


- Land trusts may also benefit from the **Connecticut Environmental Review Team (ERT)**, a program of Connecticut RC&D. The ERT provides technical assistance to towns and land trusts through project review and grant-writing guidance, especially for open space, natural resource, and agricultural planning. For some organizations, this can be an excellent entry point before commissioning more detailed work.

WORKING WITH CONSULTANTS

When approaching a fee-for-service consultant, it is usually best not to ask for a full project design or report on a pro bono basis. A better approach is to request a **limited, clearly defined contribution** such as:

- a 30-minute scoping call
- a short site walk
- a review of your draft research question
- advice on whether a project is ready for grant funding



This makes the request more respectful of the consultant's time and more likely to receive a positive response.

It also helps to be candid about why you are reaching out.

- **Explain the mission of the land trust.**
- **The stewardship question you are trying to answer.**
- **The public benefit of the work.**
- **Let the consultant know that you are looking for early guidance, not free completion of the entire project, and that a helpful interaction could lead to a future paid opportunity if the organization later secures funding and the fit remains strong.**

That gives the consultant a fair reason to engage: they are building a relationship with a possible future client while also contributing to a worthwhile conservation effort.

Finally, land trusts should engage consultants professionally and ethically. Be clear about the expected time commitment, follow up promptly, acknowledge their expertise, and avoid promising future work that the organization cannot guarantee.

If the trust has procurement, conflict-of-interest, bid requirements, or privacy concerns, those should be stated up front so that relationship-building remains transparent and fair.

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I am an applied conservation ecologist with more than 20 years of experience advancing stewardship through science, collaboration, and community engagement. I earned a Master's and Bachelor's of Science degrees from the State University of New York College of Environmental Science and Forestry, and over the years, I have served on the boards of several conservation organizations, including the Winchester Land Trust, Aton Forest, Bantam Lake Protective Association, and the Connecticut Federation of Lakes, where I currently serve as President. I have also been a board member of the Institute for American Indian Studies. My research and professional work focus on conserving wildlife, forests, water, and the ecosystem services that connect people more deeply to the communities in which they live.

I have often observed that the natural resource research and land conservation communities operate in parallel, without always connecting in ways that could strengthen both. I designed this guide to help bring them together and to encourage land trusts to see that they do not need to feel stuck, hamstrung, or forced into inaction because they lack certain information or technical expertise. Connecticut offers a remarkable wealth of advisors, institutions, and practitioners who can help land trusts investigate important questions, strengthen their capacity, and make informed decisions that benefit the ecosystems they work to conserve. My hope is that this guide gives land trusts both the confidence and the practical starting point to engage more fully in research-driven stewardship.

Please share your own experiences, questions, and ideas related to research-driven stewardship with me. Land trusts across Connecticut and beyond are working under different conditions and capacities, and I believe there is much we can learn from one another. By sharing what has worked, what has been challenging, and what questions still remain, you can help strengthen this conversation and inform future tools and partnerships for learning.