Understanding the Scope and IPM Solutions to Woody Invasive Species in the Northeast

Forest lands are abundant in New England and provide numerous types of economic, recreational, and ecosystem services to the region. However, woody invasive species continue to be a consistent challenge to northeast landowners, an issue that is being exacerbated by a changing climate, resulting in increased pressures from invasive species, and lack of information about integrated pest management (IPM) strategies that can effectively and sustainably overcome these ever-evolving challenges.

The New Hampshire Timberland Owners' Association (NHTOA) and the University of New Hampshire (UNH) are collaborating to help move the northeast region toward the first step of understanding the scope of the issue and what the current level of knowledge exists. This effort is to provide an opportunity for a Fellowship that will be tasked with making significant progress toward achieving this step.

The Woody Invasive Species Assessment Fellow (the Fellow) will work in coordination with the UNH personnel to research and produce an assessment of woody invasive species scope of challenges, IPM recommendations and efficacy, emerging issues, research and Extension programs active in the space, and relevant government and non-profit organizations in the northeast region that provide information and/or resources for landowners to use IPM strategies for managing woody invasive species. The assessment will build capacity and expand the portfolio of the Cooperative Extension and Agricultural Research Station systems to support forestland owners and managers.

For the purposes of this project, the northeast region includes Connecticut, Maine, Massachusetts, New Hampshire, New York, Pennsylvania, Rhode Island, and Vermont.

PROJECT OVERVIEW

The Fellow will be funded to complete and deliver a longitudinal assessment of the relevant research, Extension bulletins, and other reasonable literature by non-profit and governmental agencies about management challenges and approaches to deal with woody invasive species in the northeast region. This assessment will include information on:

- Woody invasive species that are present in the northeast region, the extent of the species' spread, potential economic and ecosystem costs associated with the spread of the invasive species, and recommended management strategies and their effectiveness.
- Woody invasive species that are emerging and are likely to enter the northeast region in the next 10–15 years, potential economic and ecosystem costs associated with the spread of the invasive species, and recommended management strategies and their effectiveness.
- A directory of relevant educational, non-profit, and governmental units that, as part of their mission, are tasked to assist stakeholders to identify and use IPM strategies to overcome challenges with wood invasive species.
- A directory of grant and other funding programs that are available to stakeholders for managing woody invasive species on their lands.

The completed Assessment will:

- Develop a comprehensive overview of the challenges faced by northeast landowners and provide an up-to-date repository of research-informed recommendations for IPM and other managing strategies for woody invasive species.
- Identify key areas of IPM research and educational programming for institutions of higher education, government agencies, and non-profit organizations for supporting stakeholders as emerging woody invasive species enter the northeast region.
- Encourage dialogue between forestland owners and managers, land-grant university research and extension programs, non-profit groups, and policymakers.
- Be the basis for a listening session hosted by NHTOA and UNH that will present the information to regional landowners, researchers, extension specialists, and policy makers.

DELIVERABLES & RESPONSIBILITIES

The selected Fellow will be expected to deliver a final written landscape assessment in the form of an electronic professional report published electronically by the NHTOA and any background datasets by December 1, 2024

The Fellow will also be expected to:

- Complete regular check-ins with UNH personnel and NHTOA staff.
- Present the assessment findings and data to UNH, NHTOA, and partners through at least one online professional development opportunity.

The Fellow will be encouraged to submit/adapt all or part of the Assessment work as a publication to a peer-reviewed journal in addition to the electronic professional report publication.

COMPENSATION

The selected Fellow will receive \$10,000 to be used before December 1, 2024 to conduct the activities described above: meeting and corresponding with project steering committee, develop an assessment of existing resources and knowledge, complete a written report, and present the findings to relevant stakeholders. Funding represents approximately 1 month (160 hours) of work contributing to this effort.

REPORTING & OVERSIGHT

The Fellow will be responsible for the assessment as the primary author, with oversight provided by UNH personnel. UNH personnel will provide technical assistance, serve as the publisher of the electronic professional report, and assist in the development of the web-based data repositories. UNH personnel will also provide technical support and marketing for the Fellow's presentation opportunity.

PROPOSAL SUBMISSION REQUIREMENTS

Applicants should submit a proposal (300-500 words) and CV (or multiple CV's if proposing a Fellow team) by June 30, 2024 to anton.bekkerman@unh.edu

Proposals should address how the Fellow will undertake the work detailed above and will use \$10,000 per Fellow provided to support that work. Funds may:

- support the work of a single Fellow.
- support the work of two individuals from one or two institutions who will work together, sharing the effort, each receiving an appropriate percentage of the funds related to their effort as described in their proposal.
- support the work of a single Fellow providing subsequent guidance and oversight to a doctoral student or post-doctoral scientist.

The Fellow, or all members of the proposed Fellow team, must hold or be pursuing a relevant Ph.D. The Fellow may be on sabbatical.