

A collaborative regional approach to forest insect monitoring and management

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Project Overview

Hemlock woolly adelgid (HWA) and emerald ash borer (EAB) are growing problems in the north woods and often need to be addressed by many neighboring landholders simultaneously. However, resources for comprehensive planning and inter-group coordination are often lacking. The goals of this project are:

1. Create concise literature reviews of the biology, ecology, and management of forest insects newly arrived to Mount Desert Island to contextualize management actions
2. Build framework of protocols and data sheets for detection, monitoring, and management that is transferable across landholders
3. Facilitate communication among land managers on the island
4. Compile a management plan for Acadia National Park that could be used by neighboring land managers

Process

1. Review existing literature on HWA and EAB to compile a comprehensive review, then refine for local relevance and digestibility



2. Coordinate meeting with land managers on the island to identify characteristics of stands that are a high priority for protection. Also meet with Wabanaki foresters to identify management priorities



3. Use the priorities identified to create protocols and data sheets to evaluate stand characteristics for future prioritization of sites for management action. Field test the protocols alongside park biologists to refine

4. Compile all into a comprehensive management plan for Acadia and beyond, improve with iterative feedback

Schoodic Institute is located in Acadia National Park at Schoodic Point, homeland of the Wabanaki, People of the Dawn

We recognize and respect Wabanaki relations past and present with Schoodic Point and the surrounding waters. We support the Penobscot, Passamaquoddy, Maliseet, and Mi'kmaq Nations as they continue to practice and renew their cultural traditions and identities in Acadia and beyond. Honoring Wabanaki sovereignty benefits all who live here, today and in the future.

Historically, Schoodic Point was home to Wabanaki families who harvested fish, clams, sea birds, and mammals in both the distant and recent past. Today, Schoodic Point remains an important place for Wabanaki families, and a place for cultural events, community gatherings, and meetings between Wabanaki governments and the National Park Service.

As a nonprofit partner of the National Park Service, we have a unique role to play in supporting the government-to-government relationship of Wabanaki Nations and the U.S. Department of Interior. Our role includes supporting Wabanaki scientists conducting research in Acadia on behalf of their communities. We have much to learn from them, and from holders of traditional ecological knowledge, about the environmental changes and human responses that are the focus of our research and education programs.

Regional Context

While much of Mount Desert Island is a part of Acadia National Park, several other conservation organizations also own one or more properties on the island, often sharing boundary lines. As a result, both problematic forest insects their biocontrol predators may migrate between properties, making management coordination especially important.



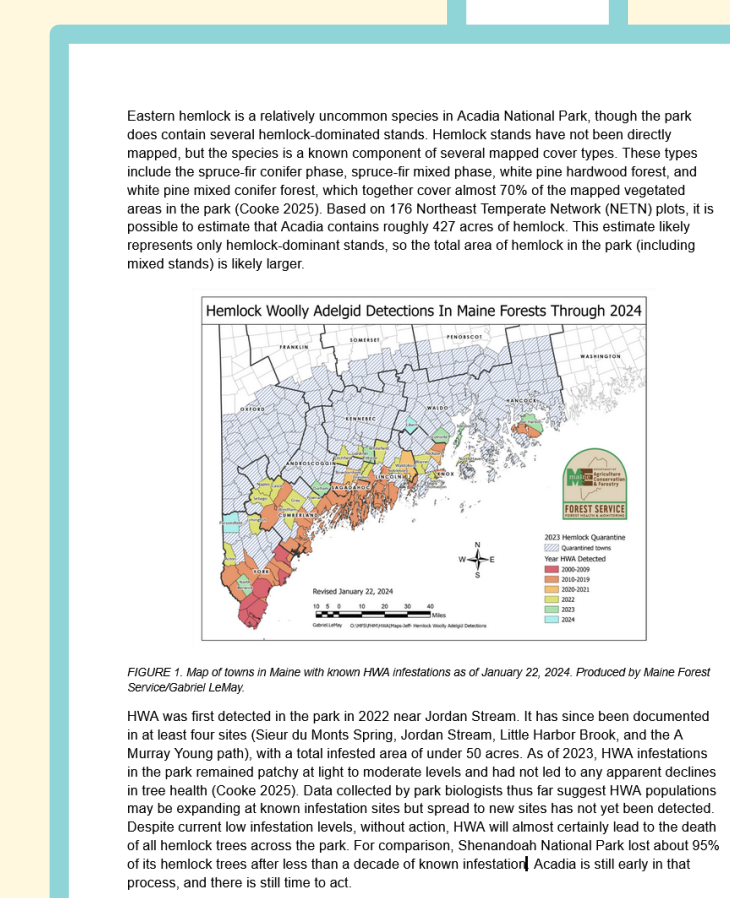
Map of Mount Desert Island, via National Park Service (Acadia National Park in green)

Products

This project produced several tools for insect detection, monitoring, and management:

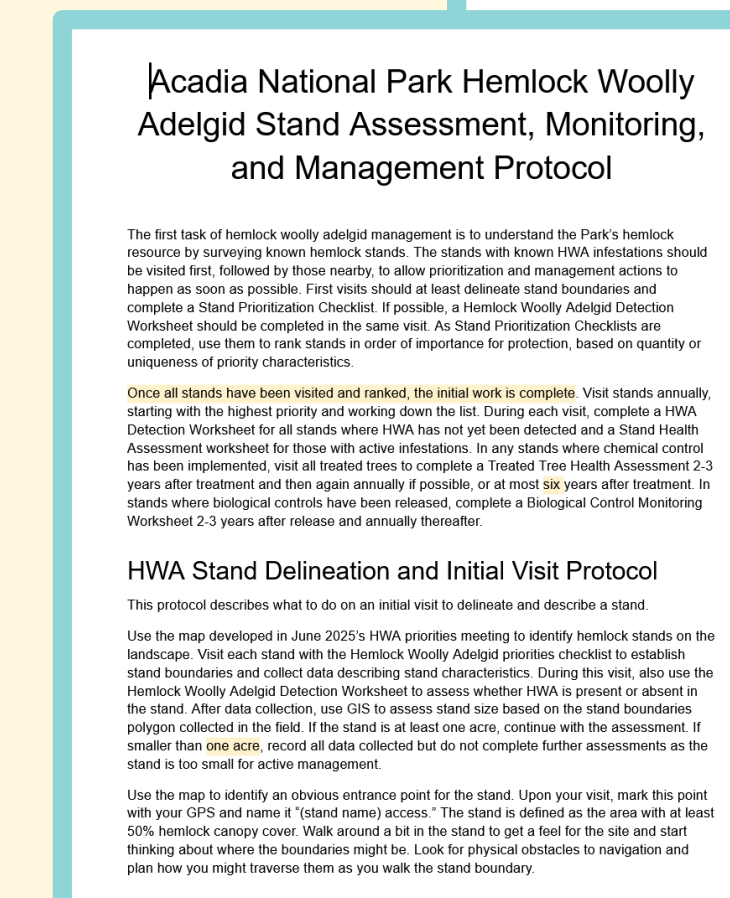
Literature Reviews

We reviewed the available literature on HWA and EAB biology, ecology, and management. We then compiled concise reviews written for a general audience to contextualize management options for administrators, managers, and funders.



Protocols and Data sheets

Survey protocols and data sheets created in collaboration with park biologists provide a standard structure for forest stand delineation, prioritization of stands, insect monitoring, and assessment of management actions



Management Plans

Management plans written for Acadia National Park offer a template for neighboring land managers and communicate planned actions