New Hampshire Coastal Watershed Invasive Plant Partnership

A Network of 27 Protected Areas

Representing 22 states and territories and protecting over 1 million acres of estuarine land and water
NH Coastal Invasive Plant Partnership

The following organizations and governmental agencies are committed to the coordinated management and control of invasive plants in New Hampshire’s Coastal Watershed.
Reduce Barriers to Invasive Species Control and Improve Collaboration
The CWMA Approach
NH COASTAL WATERSHED INVASIVE PLANT PARTNERSHIP

Signing Ceremony: 2008

NEW HAMPSHIRE COASTAL WATERSHED INVASIVE PLANT PARTNERSHIP AGREEMENT

Between and Among

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES, N.H. COASTAL PROGRAM;

NEW HAMPSHIRE FISH AND GAME DEPARTMENT;

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION;

NEW HAMPSHIRE DEPARTMENT OF AGRICULTURE, MARKETS & FOOD;

NEW HAMPSHIRE DEPARTMENT OF RESOURCES AND ECONOMIC DEVELOPMENT;

ROCKINGHAM COUNTY CONSERVATION DISTRICT;

NATIONAL RESOURCES CONSERVATION SERVICE;

UNITED STATES FOREST SERVICE;

THE NATURE CONSERVANCY;

GREAT BAY NATIONAL ESTUARINE RESEARCH RESERVE;

and

UNIVERSITY OF NEW HAMPSHIRE COOPERATIVE EXTENSION.

This Agreement is made and entered into between and among the New Hampshire Department of Environmental Services, N.H. Coastal Program, New Hampshire Fish and Game Department, New Hampshire Department of Transportation, New Hampshire Department of Agriculture, Markets & Food, New Hampshire Department of Resources and Economic Development, Rockingham County Conservation District, Natural Resources Conservation Service, United States Forest Service, The Nature Conservancy, Great Bay National Estuarine Research Reserve, and the University of New Hampshire Cooperative Extension. The entities listed above may collectively be referred to as the Signatories to this Agreement.
Organizational Structure of NH CWIPP: Steering Committee
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Organizational Structure of NH CWIPP: Sustaining Partners

New Hampshire Estuaries Project

Society for the Protection of New Hampshire Forests

N.H. Audubon
Geographic Boundaries

1,084 square miles
Covers 9% of NH
45 NH municipalities
Ecologically Important Region

Natural community types include swamp white oak forests, Atlantic white cedar swamps, black gum swamps.
Threatened and Endangered Species and Communities

18% of NH’s known rare species and exemplary natural communities (9% area)

Globally rare species include small whorled-pogonia, *Carex polymorpha*, blazing star, brook floater, ringed boghaunter, (bald eagle, osprey)
Invasive Plant Species List

The priority invasive species for the CWIPP Partnership are those species prohibited by the State of New Hampshire as described in AGR PART 3802.01 NH PROHIBITED INVASIVE SPECIES (a) The following species shall be prohibited:

- Norway maple
- tree of heaven
- garlic mustard
- Japanese barberry
- European barberry
- Oriental bittersweet
- spotted knapweed
- black swallow-wort
- pale swallow-wort
- autumn olive
- burning bush
- giant hogweed
- dame's rocket
- water-flag
- perennial pepperweed
- blunt-leaved privet
- showy bush honeysuckle
- Japanese honeysuckle
- Morrow’s honeysuckle
- Tatarian honeysuckle
- Japanese stilt grass
- Japanese knotweed
- mile-a-minute vine
- bohemia knotweed
- common buckthorn
- glossy buckthorn
- multiflora rose
- purple loostrife
- Phragmites
NH CWIPP Goals

- Prevention
- Control and Restoration
- Assessment and Monitoring
- Cooperation and Collaboration
- Outreach and Education
Goal: Prevention

Prevention is the key strategy for effective invasive plant control

- Prevention
- Control and Restoration
- Assessment and Monitoring
- Cooperation and Collaboration
- Outreach and Education
Early Detection Rapid Response: *Lepidium latifolium*

Pepperweed begins as a rosette low to the ground. It begins growing in May. At this juvenile stage, its serrated leaves are about 6” long and 2” wide.

Each pepperweed flower has four spoon-shaped petals.

Photo: Jennifer Forman
Regional Distribution

Source: IPANE
Early Detection Based on Smaller Geographic or Political Boundaries
Goal: Control and Restoration

Native plants are being strangled, shaded out, or toppled by invasive shrubs, vines and trees

- Prevention
- Control and Restoration
- Assessment and Monitoring
- Cooperation and Collaboration
- Outreach and Education
On the Ground Control and Restoration

Community supported invasive plant control at Odiorne State Park, (330 acres)

Lubberland Creek weed control project, (420 acres)

Pepperweed patrol: an early detection – rapid response initiative, (coastwide)

Great Bay National Estuarine Research Reserve invasive plant control project, (3,740 acres)
Goal: Assessment and Monitoring

Pre and post project monitoring are critical to measuring progress

- Prevention
- Control and Restoration
- **Assessment and Monitoring**
- Cooperation and Collaboration
- Outreach and Education
Goal: Assessment and Monitoring

Japanese Knotweed
(Polygonum cuspidatum)

Treated 01 Oct 2005, 33% glyphosate, cut stem application
Shared Database
Goal: Cooperation and Collaboration

Invasive plants know no boundaries. They span landscapes and property boundaries making cooperation essential.

- Prevention
- Control and Restoration
- Assessment and Monitoring
- **Cooperation and Collaboration**
- Outreach and Education
Goal: Outreach and Education

Land owner involvement is important to success

- Prevention
- Control and Restoration
- Assessment and Monitoring
- Cooperation and Collaboration
- Outreach and Education
Guide to Invasive Upland Plant Species

In New Hampshire

2005

New Hampshire
Department of Agriculture
Marketers and Food, Plant Industry Division

&

New Hampshire
Invasive Species Committee

Acer platanoides Norway Maple


Celtis occidentalis Tree of Heaven

Description: Deciduous tree up to 60' by 40' wide. Bark: Grayish, slightly rough. Twigs: Reddish-brown. Leaves: Compound, 18-34' long with leaflets arranged alternately on long petiole, 3-5' long with 3-6 leaflets. Flowers: Pinnacles, 8-16' long. Fruits: Green, mid-June. Fruits: Samarae: 4, 8. Habitat: Highly adapted to urban areas. Adaptable to shade. Spread: Seeds are wind dispersed. Comments: Very fast growing, often out competes native species; Remove seedlings and saplings by hand. Larger trees can be mechanically removed or cut. To prevent, if trees are cut, apply to cut portion of stump.

Its Your Choice: Invasive Plant Control Options for Landowners

100 Years of Caring for the Land and Serving People

Applying Science and Education to Improve the Management of Estuaries

Upcoming Workshop

Breaking through Barriers: A Roadmap to Invasive Plant Control

NH Coastal Watershed Invasive Plant Partnership Presents:

A Day-Long Symposium to Advance the Regional Coordination of Invasive Plant Control

Seacoast Science Center
Gregg Interactive Learning Studio
570 Ocean Blvd.
Rye, NH

May 20, 2010
8:30 am - 3:00 pm

Program Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>8:30</td>
<td>Check-In (Refreshments Provided)</td>
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<tr>
<td>9:00</td>
<td>Introduction to NH Coastal Watershed Invasive Plant Partnership - Kevin Lucey</td>
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<tr>
<td>9:15</td>
<td>Keynote Speaker: Lessons Learned from Other New England States - Les Merhoff</td>
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<tr>
<td>10:00</td>
<td>Pesticide Control Rules Pertaining to Invasive Species Control and the Impacts of Recent and Pending Rule Changes - Bob Wolff</td>
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<td>10:30</td>
<td>Break</td>
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<tr>
<td>10:45</td>
<td>The Nuts and Bolts of Pulling Together an Invasive Plant Control Project - Lenny Lord and Brooke Smart</td>
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<td>11:15</td>
<td>Japanese Knotweed Panel Discussion - Christine Perron, Rachel Stevens, &amp; more</td>
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<tr>
<td>12:00</td>
<td>Lunch (box lunches provided)</td>
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<tr>
<td>1:00</td>
<td>Patrolling and Controlling Pepperweed: Successes and Challenges in Massachusetts’ Great Marsh Region - Liz Duff</td>
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<tr>
<td>1:30</td>
<td>Developing an Invasive Plant Control Plan for Odiome Point State Park - Jennifer Jespersen</td>
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<tr>
<td>2:00</td>
<td>Field tour of recent invasive plant control projects at Odiome State Park and Weed Wrench™ demonstration led by the Rockingham County Conservation District</td>
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<tr>
<td>3:00</td>
<td>Adjourn</td>
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Questions about the program: Kevin Lucey, 603-559-0026 or Kevin.Lucey@des.nh.gov
Questions about registration: Joanne Ward, at 603-679-2790 or rocld@rockinghamcod.org

Speakers

Elizabeth Duff, Education Coordinator, Mass Audubon
Jennifer Jespersen, Project Manager, FB Environmental Associates
Leonard Lord, District Manager, Rockingham County Conservation District
Kevin Lucey, Restoration Coordinator, NH Dept. of Environmental Services, Coastal Program
Les Merhoff, Ph.D., University of Connecticut, George Safford Torrey Herbarium Department of Ecology and Evolutionary Biology
Christine Perron, Senior Environmental Manager, NH Department of Transportation, Bureau of Environment
Brooke Smart, District Conservationist, USDA Natural Resources Conservation Service
Rachel Stevens, Stewardship Coordinator, Great Bay National Estuarine Research Reserve
Robert A Wolff, NH Division of Pesticide Control, Groundwater Program

Coastal Watershed Invasive Plant Partnership

The Coastal Watershed Invasive Plant Partnership’s mission is to protect the ecological integrity of natural habitats and economic vitality of managed lands in New Hampshire’s coastal watershed through activities that reduce the threat of invasive plants.

With the signing of an official agreement, 11 state and federal agencies and nonprofit conservation groups formed a strong alliance to stop the spread of invasive plants in New Hampshire’s coastal watershed.

Hot Topics
- Next Meeting: March 18, 2010
- Meeting Minutes, Agendas and Presentations

Publications
- CWIPP Overview and Goals Pamphlet
- CWIPP Management Area Map

Education/Outreach
- Perennial Pepperweed

Partnerships
- Partnership Agreement
- Partners

Resources/Links (Complete List)
- NH Department of Environmental Services - Exotic Species Program
- New Hampshire Invasive Species Committee
- Invasive Plant Atlas of New England
- The Nature Conservancy - Global Invasive Initiative
- Guide to Invasive Invaded Plant Species in New Hampshire - NH Department of Agriculture

Sum of the Whole: Unique Abilities of Some Key Partners
Reports

Management Plan
Annual Report
Annual Operating Plan
There’s No One Right Way
To Help Maintain Native Biodiversity