Minutes of meeting:
Northeast IPM Invasive Species Workshop
November 5, 2010 ● Amherst MA

Introductions

The meeting was called to order by Ellie Groden. This meeting represents an effort to provide communication and collaboration among the many groups and individuals who work across the spectrum of research, education, regulation and management, to address all taxa of invasive species, in New England and New York. This group will provide a mechanism for input from many stakeholders, in an effort to encourage greater visibility, procure needed resources, and develop a regional approach to invasive species work.

Attendees introduced themselves:

Mark Brand, University of Connecticut
Dick Cassagrande, University of Rhode Island
Doug Cygan, New Hampshire Dept of Ag
Bob Eckert, University of New Hampshire
Ann Elagrande, University of Connecticut
Jen Forman-Orth, Massachusetts Dept of Ag
Ann Gibbs, Maine Dept of Ag, Food and Rural Resources
David Gregg, Rhode Island Natural History Survey
Ellie Groden, University of Maine
Carrie Koplinka-Loehr, Northeast IPM Center
Holly Menninger, Cornell University
Sharon Plumb, The Nature Conservancy, Vermont
Jen Pontius, University of Vermont
Randy Prostak, University of Massachusetts
Caleb Slemmons, University of Maine
Lois Stack, University of Maine

Survey results: *The Dirty Dozen*

One objective for this meeting is to provide Northeast-IPM with a prioritized list of invasive species of the region, indicating what needs are being met, what needs remain unmet, and how we can move forward as a region to address these needs.

Six of the seven states represented at the meeting had forwarded a "Dirty Dozen" list of invasive species specific to those states. These lists reflected an assessment of both present and anticipated pests.
Ellie Groden presented a compilation of these lists:

Forty species were presented among the six state lists.
Species included 20 plants, 19 animals and 1 virus.
Species included 29 terrestrial, 9 freshwater and 2 marine species.
The majority of listed animals were anticipated; the majority of listed plants were present.
No species were listed on all six lists.
Five state lists included Asian longhorned beetle, barberry and oriental bittersweet.

Four state lists included emerald ash borer, hemlock woolly adelgid, Japanese knotweed and mile-a-minute vine.
Rankings were hard to compile due to different approaches, but top ranked species included:
Asian longhorned beetled ranked #1 by ME, MA, NY
Glossy buckthorn ranked #1 by VT
Autumn olive ranked #1 by NH
Most lists include species already present in states.

Discussion ensued, with agreement that a unified list needs input from all states, further compilation, and further definition to match the purpose of the list with the most meaningful final product.

Individual state presentations

Individuals from each state presented case studies of successful projects that addressed invasive species issues through collaboration among agencies/people:

Maine Invasive Species Network (MISN) (by Lois Stack):
MISN connects Maine professionals who work on research, public outreach and/or management of invasive species in Maine. MISN's goal is to identify people and organizations working on invasive species, determine their needs, identify resources that could be shared, and identify potential collaborative projects. The group first met in October 2009. Outcomes include an increased awareness of each other's work, the NE-IPM grant that supports this regional project, establishment of a website for networking, and a collaborative invasive species mapping effort.

New York invasive species collaborations (by Holly Menninger):
The state legislature created the NY Invasive Species Task Force in 2003 with input from many groups. This group established the Invasive Species Council in the Dept of Environmental Conservation, which makes decisions on funding distribution for eradication, mapping, etc.
Eight Partnerships for Regional Invasive Species Management (PRISMs) are now established, two with funding, for purposes of educating, mapping, managing and preventing invasives.
New York participates in iMapInvasives (imapinvasives.org), which focuses on ED/RR.

Wise on Weeds! program and other efforts in Vermont (by Sharon Plumb):
Wise on Weeds!'s goals are to educate the public and empower local land managers, to reduce the spread of invasive terrestrial plants through workshops, literature, demonstration sites, events and a new website (vtinvasiveplants.org).
Vermont also participates in iMapInvasives.
A collaborative program is working with nursery owners to reduce sale of invasive plants through a voluntary code of conduct.

Water chestnut control in Rhode Island (by David Gregg):
The Rhode Island Natural History Survey obtained Rhode Island Foundation funds to work with local communities when water chestnut (*Trapa natans*) was discovered in a shallow pond in 2007. They were able to assess the scope of the problem, identify local partners, educate the public, involve the press, organize training and conduct volunteer management events to control the infestation. Their efforts resulted in control of the problem, with 400 pounds removed in July 2007 and fewer than 20 plants removed in 2010.

Regulation of invasive terrestrial plants in New Hampshire (by Doug Cygan and Bob Eckert):
The NH legislature created the New Hampshire Invasive Species Act in 2000, and charged a

committee to develop a set of compliance guidelines that involved banning sale of listed species. The current law lists strictly bans sale/movement of the 27 listed species. Since 2004, $200,000 has been collected in fines. The program's success is reflected in the 2010 level of fines, just $7,000. The Dept of Ag also has established pilot projects to eradicate some invasive plants; this was made difficult because NH law requires that species appear on pesticide labels for legal use.

MIPAG and specific plant programs in Massachusetts (by Randy Prostak and Jennifer Forman-Orth):
A coalition of people who convened to address invasive plants evolved into the MA Invasive Plant Advisory Group, and the group's list of 85 species eventually became the state's list of prohibited invasive plants. Seven Dept of Ag employees address three invasive plants: mile-a-minute vine, giant hogweed and kudzu. Their program targets education, management and eradication. Challenges include wetland regulations and seeds that can move undetected from one site to another in soil.

Invasive plant research in Connecticut (by Mark Brand and Ann Elagrande):
To address the issue of cultivar exemptions for invasive shrubs, Mark evaluated barberry cultivars for seed production. Yields varied from 0 to 10,000 fruits per plant. New work includes assessment of germination and plant survival in woodland settings. One goal is to determine the number of fruits per plant that would be the "maximum acceptable number" to retain a plant for nursery sales. Burningbush presents a potentially more serious problem, as cross pollination of apparent "sterile" cultivars produce seedlings that are more persistent than barberry.

Northeast Forest Pest Outreach and Survey Project (by Ann Gibbs):
Subsequent to the discovery of Asian longhorned beetle in Worcester MA, a regional project was developed with funding from USDA-APHIS, to conduct field surveys and develop outreach programs to educate homeowners and others, with a goal of assessing what could happen if the insect spread further. The regional nature of the project brought together people with different expertises, from different agencies, who were able to share resources and avoid duplication of efforts, to maximize return on effort.

An Introduction to Northeast-IPM

Carrie Koplinka-Loehr summarized the operations of NE-IPM. USDA provides about $500,000 for NE-IPM's regional programs, plus about $600,000 for land grant programs. This year there are nine working groups (including this invasive species group), which are cross-state groups focused on specific topics. NE-IPM is always interested in projects that address the intersection between research and extension, and that are cross-disciplinary and multistate in nature. NE-IPM maintains an active website about its work (www.northeastipm.org), and also interfaces with the other three regional IPM centers.

Discussion: The status of collaboration in our states

Fostering networks within our states and among our states is critical in times of shared problems and scarce resources to address them. The group discussed how collaborations develop and work. Some ideas generated from this discussion include:
1-Good collaborations are based on specific objectives and an understanding of who will do what.
2-For funding, clarity of who is in the group and who will do what, plus a track record of work in the area of concern, are important.
3-Merging data from all collaborators can create a powerful document for obtaining additional funding and support.

4-Agencies often claim ownership of issues individually. This causes duplication of effort and confusion for everyone. But, pooling efforts can reduce duplication and help everyone move ahead faster.
5-One of our group's goals is to facilitate collaboration rather than competition for resources. If we can come up with a list of invasive species and what needs to be done, we can join forces and work together toward broad goals, with each stakeholder specifically addressing more focused subgoals.

Group discussion: Introduction

The group spent the afternoon discussing a series of points related to this project. Ellie Groden introduced the discussion by noting that one goal of this project is to assess the functioning and organization of invasive species groups in the seven states. Who are the players in each state? How are they coordinated? How can we tap into that group in order to look at everyone's needs in terms of research, outreach, management and regulation?

Group discussion: Developing "The Dirty Dozen" List

Ellie Groden re-introduced the topic of the species list. One outcome of this project will hopefully be a list of species, with contributions from managers, regulators, researchers and educators. This list will be used by NE-IPM, to provide guidance for future project funding. Each species might have specific priorities and needs, and these might vary from state to state. Should more people be involved in developing the list of species? How can we solicit their input? Should the list be unranked? Should it involve species of current concern, or should it also include anticipated invasions?
Points contributed by the group included:

- Who are the stakeholders? Who should contribute to the list?
- Maybe the list we have is adequate; it's comprehensive, and leaves room for everyone.
- Breadth is good in the list.
- Rankings can be artificial and can lead people to false conclusions.
- The list should be expanded to include management recommendations, species characteristics, information about sensitive ecosystems. That would allow the list to be used in multiple ways.
- Some species might be prioritized by pathways, so the list should go beyond a list of species.
- We need more data about many species to create this kind of list. Databases that cross regional boundaries would be very helpful for use by educators and researchers.
- Trends would likely show up as this data is organized.
- Ranking is less important than annotations; ranking wouldn't be able to take into account the size, number of populations, the habitats those populations are near, etc. We need a management decision to go along with ranking.
- A coordinated group effort across the region could begin to target species for the list. We could do this with email: come up with a spreadsheet template for states to use. Each state could involve people with different perspectives, knowledge of various species/methods/systems/etc. We'd achieve a better dataset, with both specific species/ecosystems/etc, and general areas that need to be addressed. State representatives at this meeting will be critical in involving other stakeholders.
- Maybe another question is: is there a compiled list of stakeholders to involve? Of course, we can leave it open for additional people to contribute. The list would help us get started.
- We need to make a way to bring that information together on a regional basis … first state-by-state, or ecosystem-by-ecosystem, and then regionally.
- Some of the issues we need to address to create this database include:
    - How should research areas be prioritized in each state, and in the region?
    - Which species should be prioritized (or should they be prioritized)?
    - How can we link local problems with sources?

- How can we engage citizen scientists, agencies, in an equal way, while avoiding repetition and competition?
- Perhaps we need to cross scales in order to create a comprehensive database? Some individuals work at different scales, and some problems can be addressed at several scales.
- Who are the stakeholders, and how can we best coordinate them among state in the region?
- We need to consider economic impact as a major factor; people think with money.
- We need to plan to translate research for general use.
- We need to use existing data; for example, species distribution reports.

Group discussion: Funding

Group comments about funding included:

- USDA-ERS has funded invasive projects. Their reports would be a good starting point for seeing what has been been done. Hemlock woolly adelgid work, for example, was driven by potential economic impact.
- Justification of grant proposals requires that the applicant bring people together, identify common interests and needs, and put forward a unified request that is justifiable. Our meeting, polling our colleagues, developing the species list – all these things are part of the process of determining the priorities for the Northeast. These priorities can involve research, outreach, etc. Agencies like the Northeast IPM Center have traditionally funded only agricultural types of projects. We have an opportunity to shift agencies' priorities. So … what are our priorities?

Group discussion: Research

Group comments about invasive species research included:

- Our research priorities should translate ultimately to management.
- Are our research questions at the ecosystem level? How can we link people who might be involved in grassroots projects, citizen scientists, agency managers, researchers … all together so that the organization is not hierarchical?
- Many individuals work at multiple scales. Some problems should be addressed at landscape scale, but others at very localized scales.
- One good research project might be to develop a tool to assess the environmental/economic/social impact of invasive species, and to use that tool to rank the species in our list according to impact.
- Or, perhaps the impact is so species-specific that it just needs to be highlighted for each species.
- A plant invasive in one area might not be invasive in another. There are many regional and local aspects of this issue. We may want to quantify environmental impacts, identifying the kinds of questions one would ask relative to the context of species. This could general each individual's context for a defined environment.

Group discussion: Sharing

Group comments about sharing included:

- We should always circulate to others what we're doing, particularly for outreach, so that we don't all reinvent the wheel. What do you have/what can you share? This happens a lot in the Midwest. Research is important, but we need on-the-ground management and guidelines for policy.
- Policymakers could be an important target audience for our project's outcomes.

- Individuals in this group have protocols for management; these could be shared.
- The National Park Service, University of Wisconsin, and others have online BMPs that we can all access.
- Northeast-IPM has a database facility for sharing resources, which could be used by this project.
- We should think long-term. Websites can be short-term, and we shouldn't develop yet one more repository that will become outdated or not well managed.
- We could all learn from each other. We all have research findings that could be shared through a database of some sort. One project, for example, might be the regional weed specialists who could identify/prioritize some target species and list management methods/herbicides.
- Another resource we should share is listing of outreach and research people in each state, and what kinds of projects/species each is working on.
- Sharing information about alternatives that might reduce spread of invasives would be great.
- Collaborations work best when team members are already in place, and all that's needed for a project is funding. We need to learn who is available to collaborate, so that we're not all competing against each other for funding.
- Meeting every year as a regional group would be a good way to start collaborations. We could focus on one species each year, or host a more comprehensive meeting. This could be our second-year proposal? Such a regional meeting could be a venue for sharing ED/RR lists among states, research ideas, etc.

Group discussion: Future of This Project

Ellie Groden summarized some of the major points of this current project:

- This face-to-face meeting will be followed by conference calls to continue our work. In those calls, we can determine where to go from here, facilitate development of collaborative projects, and move on to new projects.
- We do want to develop a species list, but don't want it to be limiting for future work.
- Northeast-IPM could fund this group to continue to work with groups in states outside those represented by us, to produce a meeting or other effort related to invasive species. We could organize a conference, gather information, pull together information for publications that look at management of invasive species, continue to communicate regionally, etc. Keeping this group at a manageable number of people facilitates discussion.
- Our funding includes a small amount of money for each state, for instate activities.
- At the end of this current project, we need to put forward priorities for funding in the area of invasive species.

Group comments about sharing included:

- It would be great to have a meeting every single year where people representing many stakeholding agencies could get together to talk about these issues. We're very lucky to be here today.
- Our future meetings should be appealing to a diverse range of people, to attract many stakeholders.
- We could organize a conference with a major focus, but also with mini sessions on sharing information, grant writing, species management, etc.

Summary: The Next Steps

Ellie Groden summarized the next steps for this current project:

- We want to develop a list of the stakeholders and major players in each state. Who are the people involved in invasive species issues? How are they connected to each other?
- What are the species priorities for our region?