

CONTINENTAL DIALOGUE ON NON-NATIVE FOREST INSECTS & DISEASES
SIXTH DIALOGUE MEETING
OCTOBER 5-6, 2010

Meeting Summary and Action Items

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NOTE: Presentations and attachments (including the meeting agenda, participant list, flip chart notes from the breakout sessions, and a roster of Dialogue Steering Committee members) are available online at the following URL:

<http://www.continentalforestdialogue.org/events/dialogue/2009-10-27/presentations/index.html>

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Meeting Summary and Action Items

I. Overview and Background

On October 5-6, 2010, a diverse group of over 110 representatives from state, federal, and municipal agencies; private business and industry; academia; and non-governmental organizations gathered at Brandeis University in Waltham, Massachusetts for the sixth meeting of the Continental Dialogue on Non-Native Forest Insects and Diseases (the Dialogue). The meeting was convened by the Dialogue Steering Committee, a cross-section of stakeholders with an interest in protecting forests from the threat of non-native insects and diseases.

The goal of the October 2010 Dialogue meeting was to advance collaboration around actions to address the threat of non-native forest insects and diseases. Specific objectives included:

- Cultivate collaborations toward action to address the threat of non-native forest insects and diseases;
- Link state and local actions to Continental Dialogue efforts to enhance national policies and strategies;
- Enlist communities in the battle against non-native insects and diseases impacting their trees; and
- Identify and agree on needed actions for Continental Dialogue to take in the upcoming year.

Presentations slides are available online at the following URL:

<http://www.continentalforestdialogue.org/events/dialogue/2009-10-27/presentations/index.html>.

II. Day One – Tuesday, October 5, 2010

A. *Field Trips*

Activities of the 2010 Continental Forest Dialogue meeting began early on the morning of October 5, ahead of the plenary sessions. The greater Boston area offered a number of field trip venues for the meeting participants to experience Dialogue issues first hand. Approximately 80 Dialogue members attended one of three concurrent field trips.

One group visited the town of Worcester, MA, which has become one of the hardest-hit towns in the United States for Asian longhorned beetle (ALB) since the insect's discovery there in 2008. The group visited stops that highlighted the discovery of ALB, the community response to the threat, the impact on community forests, current restoration efforts, and the continued threat. A second group visited the USDA/APHIS Otis Laboratories in Buzzard Bay, MA to tour the facilities and learn about USDA's programs and actions to prevent, detect, and control introduced forest pests, including current research on biocontrols and seriochemical attractants. A third group visited the Arnold Arboretum in downtown Boston, MA, near a recent detection of ALB. This group took a

walking tour and learned about the Arboretum's work with hemlock woolly adelgid and other invasive pests.

After these three field trips, the groups convened at Brandeis University in Waltham, MA.

B. Welcome and Opening Remarks

Paul De Morgan, the meeting facilitator from RESOLVE, welcomed the participants to the meeting on behalf of the Continental Dialogue Steering Committee. He asked Steering Committee members in attendance to identify themselves. Mr. De Morgan briefly reviewed the materials provided to meeting participants, highlighting the participant list and Steering Committee roster to help the large group identify existing colleagues and new contacts. Mr. De Morgan reviewed the agenda and ground rules for the meeting before introducing the opening speakers, Dr. Dan Perlman, Mr. Brian McPeek, and Mr. Ramsey Ravenel.

Dan Perlman, Associate Professor of Biology and Chair of the Environmental Studies Program at Brandeis University, welcomed the participants. He informed the group that he teaches about invasive species in his Conservation Biology class, a topic he finds depressing. Yet, he expressed hope that invasives can be dealt with given the level of attendance at the Dialogue meeting, and the effort and focus directed at invasive forest pests. He encouraged meeting participants to see the meeting as an opportunity to nurture the next generation of people who would work on invasive forest pests, and noted there were a number of students in the audience.

Brian McPeek, The Nature Conservancy's (TNC) Chief Conservation Strategy Officer and the Regional Managing Director for North America, also provided opening remarks. He shared Dr. Perlman's optimism over the ability to deal with invasive forest pests, given the efforts of programs such as the Dialogue and TNC's Forest Health program. Mr. McPeek provided a brief history of the Forest Health Program, which was started in 2005 by Frank Lowenstein and Bill Ginn. The Dialogue evolved out of that as a way to take a more proactive approach to forest pests and pathways on the East Coast. Mr. McPeek noted that today the Dialogue encompasses hundreds of participants across different sectors collaborating together, thanks in great part to Mr. Lowenstein's efforts as the Conservancy's Director of Forest Health.

Mr. McPeek then informed the group that Mr. Lowenstein was leaving the Forest Health Program to become TNC's Climate Adaptation Leader, overseeing the organization's climate adaptation efforts at the global level. Mr. McPeek then introduced Laura Marx and Troy Weldy, who will be serving as interim directors for the Forest Health Program. TNC is also planning to integrate its forest health programs under one person. Mr. McPeek assured meeting participants that the Dialogue will continue to be a high priority activity for TNC.

Ramsey Ravenel, the General Manager of the Grantham Foundation for the Protection of the Environment (the Grantham Foundation), acknowledged Dr. Perlman, who was his professor fourteen years ago. He also thanked Mr. Lowenstein and his team at the Conservancy for their work and dedication. He informed the group that it was an honor to fund the Dialogue as it was work the Foundation is confident will make a difference. He highlighted the Dialogue's commitment to communication and collaboration across organizational boundaries.

Mr. Ravenel then provided an overview of some of the Grantham Foundation's other activities, including establishing the Grantham Institute for Climate Change at Imperial College, London, and the Grantham Prize in Excellence in Reporting on the Environment. He explained that the Grantham Foundation had a particularly focus on climate change and conservation, and that over the past few years, the Foundation has been increasing funding and focus for climate change issues, which the Foundation saw as the umbrella issue of today. He acknowledged that the Dialogue demonstrates the overlap between conservation priorities and climate change.

C. Orientation to the Continental Dialogue

Frank Lowenstein, TNC, a member of the Dialogue Steering Committee, followed with an overview of the Dialogue. He began by acknowledging the work and dedication of the Dialogue Steering Committee member, the RESOLVE team, and the TNC staff who work on the Dialogue: Leigh Greenwood, Faith Campbell, and Sarah Volkman. He thanked the Brandeis Environmental Studies Program, particularly Dan Perlman and Brian Donahue, for hosting the meeting.

Mr. Lowenstein observed that the world has changed substantially since the Dialogue's first meeting in the summer of 2006 outside of Washington, DC. Since then, ALB and Emerald Ash Borer (EAB) have spread, new species (e.g., Goldspotted Oak Borer) have been detected and become significant issues. The conversation has shifted from eradication to containment and slowing the spread. Mr. Lowenstein acknowledged that at the same time, the Dialogue has grown and increased the scope, power, and effectiveness of its collaborative work. He explained that Dialogue participants have the opportunity to participate in the development of letters, or sign onto them, but only if they are interested. He likened the Dialogue to an airport, in which many participants with different destinations all share a common purpose (e.g., reaching a destination) but there are different means of travel. Dialogue participants self-select to participate in the issues they are most interested in.

Mr. Lowenstein highlighted the Dialogue's outreach and communication activities. He noted the success of the Don't Move Firewood campaign, which has produced measurable change in public attitudes. He also reminded the group of the documentary *Lurking in the Trees*, which told the story of ALB in Worcester, MA. The Dialogue also works on a number of different initiatives, reaching out to all levels of government, both political appointees and elected officials. Mr. Lowenstein also noted the Dialogue's work to improve the Q-37 rule, address *Phytophthora ramorum*, determine the economic impacts of forest pests, and develop further videos and documentaries.

D. Introduction to Pathways in the West

The 2010 Continental Forest Dialogue meeting was the first to take place in the Northeastern region of the United States. **Sandy Liebhold**, United States Forest Service (USFS), Northern Research Station provided the meeting participants the regional context of non-native insect pathways in the Northeastern U.S. He explained that the Northeast could be considered "ground zero" for invasive forest pests, and noted it is one of the hardest-hit regions of the country.

Dr. Liebhold reviewed several geospatial databases showing distribution of various forest pests and diseases, cumulating in a map depicting the species richness of invasive forest pests in the United States. He then listed some of the variables that correspond with species richness, highlighting the number of host genera, and the successional nature of Eastern forests, both of which create more opportunities for invasives to establish and spread.

Dr. Liebhold also identified two important pathways: the international movement of raw wood, and the importation of live trees. He explained that wood was the major pathway for wood borers, but that live plants were the major pathway for pathogens and sapfeeders. He emphasized that the live plant pathway needs to be addressed and controlled, especially since the movement of plants for planting is increasing.

E. Economic Impacts of Non-Native Forest Pests and Disease

Deborah McCullough, Michigan State University, gave a presentation summarizing some of the findings of the NCEAS Working Group 1, tasked with researching the economic impacts of invasive forest pests. She explained that the study was initiated three to four years ago, in response to the lack of economic data available for 98-99% of non-native forest pests.

Dr. McCullough explained that the working group undertook inventorying the non-native forest insects that have established in the United States, and then identifying the short list of high-impact insects and pathogens that cause damage. Of the 455 insect species on the long list, approximately fourteen percent are considered “high impact.”

Dr. McCullough then identified the three major pest groups: borers, sap feeders, and foliage feeders. She highlighted the poster pest for each – EAB for borers, hemlock wooly adelgid for sap feeders, and gypsy moth for foliage feeders – and estimated the range of costs associated with each. She noted that the working group’s analysis indicated the costs associated with non-native forest insects were much greater than previously estimated, and that these costs were much broader than market losses. She explained that the costs are not uniformly allocated, and that homeowners and municipal governments bear most of the costs. She also noted that not all non-native forest pests would have as many costs as the high impact species. Dr. McCullough mentioned that the working group’s estimates were very conservative, and did not include impacts on ecosystem services.

F. Panel #1A – Pathway Mitigation

A significant portion of the meeting was used to hold four panel discussions on various topics. During each panel, a number of panelists delivered presentations, followed by a facilitated discussion to integrate the content and provide an opportunity for questions and discussion. Five panelists participated in the first of the panels focused how to mitigate the pathway of non-native forest insects and pests. The Pathway Mitigation panel was divided into two sections: the first focusing on solid wood packaging, the second focusing on live plants.

Golden Imports and the Three Borers: A Balance Between the Benefits and Unintended Consequences of International Trade

Mike Springborn, University of California, Davis, presented some of the findings from NCEAS Working Group 2, who was tasked with analyzing the impact ISPM 15 had on the costs and benefits of international trade. The Working Group used a Global Trade Analysis Project (GTAP) Model and looked at two potential scenarios: current ISMP 15, and increased heat treatment. The group concluded that ISPM 15 did lead to some reductions in the introduction of new non-native forest pests, but not as much as initially expected. Dr. Springborn recommended that future policies should be designed to include data collection and sampling.

A Localized Survey of Solid Wood Packaging and Insect Activity Pre and Post ISPM 15

Anand Persad, The Davey Institute, summarized a survey he undertook of solid wood packaging from before and after the implementation of ISPM 15. He found that the frequency of insect occurrence correlated with the pallet part size, noting that biological activity associated with insects was most prevalent in pallets made from wood that was two to four centimeters thick. Overall, Dr. Persad did not find significant decrease in the number of observed biological activities in pallets from before ISPM 15 and in pallets from after ISPM 15, though he noted the very small sample size used in the study could have contributed to the findings. Dr. Persad highlighted the issue of re-manufactured pallets, in which pieces of pallets that have been heat treated could be combined with pieces from pallets that have not been treated.

Efficacy of Heat Treatment (IFQRG Findings)

Ron Mack, Jr., APHIS PPQ, presented the findings of the International Forestry Quarantine Research Group (IFQRG) on the effectiveness of heat treatment on solid wood packaging. He noted that ISPM 15 was adopted in 2006, and included both heat and methylbromide treatment. Since its adoption, there have been 72 submissions for new treatments to include in ISPM 15. Most of these have been closed or withdrawn, and many have been sent back for more information. Mr. Mack briefly reviewed the seven submissions that addressed wood treatment, all of which are on a fast track. He observed that newer treatments appeared to be held to a higher standard, and a new round of country consultation will impact the approval timeframe for new submissions.

Facilitated Discussion

Following the presentations, the Dialogue was given the opportunity to engage the panelists in discussion and ask questions. A number of members were concerned with how to better address the solid wood packaging pathway of introduction. All the panelists agreed that more statistical rigor would be helpful, and should have been considered throughout the rule development process.

In response to a question about alternatives to wooden pallets, Dr. Springborn noted that plastic pallets would greatly impact the cost of trade as they are significantly more expensive. Mr. Mack also noted the environmental concerns of moving towards a petroleum-based packaging system.

Several points were raised related to the wood packaging after entry. One member pointed out that there is no way to verify pallets had undergone heat treatment. Mr. Mack explained that IFQRG had not considered a verification system for new treatments, but acknowledged that verification should be part of the approval consideration. Another member noted that some insects will reinfest treated wood. Dr. Persad stated that was an issue that had to be dealt with at the port of entry, where it would be easiest to limit reinfestation. One member also suggested back-end treatments at “pallet graveyards” to eliminate the risk post-entry. Dr. Persad added the suggestion of providing economic incentives to recycle pallets.

One member informed the group that the United States currently has an exemption with Canada, which both countries have agreed to end. APHIS should release a rule to that effect soon. This member also noted that the United States has an agreement with China that is more stringent than ISPM 15, and requires that wood coming from China is already treated.

G. Panel #1B – Pathway Mitigation

Nursery Effects: Geraniums as an Example

Lin Schmale, the Society of American Florists, presented on how the geranium industry partnered with APHIS to develop a certification system for *R. solanacearum* (R3B2) bacteria, found in the soil of much of the world but not in the United States or Canada. For economic reasons, the vast majority of geranium production has moved offshore, and thus was a potential pathway for R3B2. Ms. Schmale reviewed the different elements of the geranium industry's systems approach to prevent contamination. She emphasized that a systems approach must be developed based on existing industry standards and practices, and it is only one tool to prevent introduction.

The New IPPC Standard and Implications for the US and Update on Q-37 Rulemaking

Heather Coady, APHIS PPQ, provided updates on the new IPPC draft standard for Plants for Planting, and the Quarantine 37 (Q-37) revisions. She noted that the new IPPC draft standard would introduce an integrated measures approach to manage the risks from both known and unknown pests. The country consultation just closed, and the IPPC will review the new draft standard before countries decide whether to adopt the standards. Ms. Coady explained that the earliest adoption date would be in spring 2012.

Ms. Coady then reviewed the proposed Q-37 revisions, which includes:

- The creation of a Not Authorized Pending Pest Risk Analysis (NAPPRA) category, which would allow APHIS to take prompt action on a plant while still allowing for public participation;
- Making the previous process of department permits more transparent with the creation of controlled import permits for restricted plants;
- Consolidating and revising the Q-37 regulation so it is easier to use; and
- Creating APHIS's steps for a systems approach.

She informed the group of APHIS's long-term conceptual goals for Q-37, and invited participants to keep informed of the revisions process using the Q-37 website.

Facilitated Discussion

During the facilitated discussion, members focused on identifying risk. In response to a question, Ms. Coady explained that the draft IPPC standards include many variables to determine risk, to move beyond just a port of entry inspection. Ms. Schmale noted that a pathway approach would probably help identify and prevent the introduction of unknown pests. Ms. Coady added that a systems approach is the justification for any restrictions or prohibitions APHIS implements.

Two members pointed out that the frequent movement across the United States-Canada border is an issue because it sometimes masks the true country of origin of the plant.

H. Pest Fest

After the plenary session adjourned for the day, the group reconvened for Pest Fest, featuring a poster session and a costume contest. Participants were given the opportunity to talk with poster presenters and vote on non-native forest pest costumes. The Pennsylvania's Department of Agriculture EAB costume won Best in Show. The Maine Department of Agriculture and Maine Forest Service's hemlock woolly adelgid won Most Creative. The Maine Department of Agriculture's Asian longhorned beetle won Most Scientifically Accurate.

III. Day Two – Wednesday, October 28, 2009

A. Panel #2 – Citizen Detection

Jodie Ellis, Purdue University, provided the group some background information on citizen science, pointing to the National Audubon Society's Christmas Bird Count as one of the oldest examples. She noted that citizen volunteers are a tremendous resource in data collection, and incorporating citizen volunteers engages the public in a hands-on and productive way.

USDA's Citizen Volunteer Pest Survey Project for ALB and EAB

Tom Chanelli, APHIS PPQ, presented on a 2009 pilot mail survey USDA conducted in Michigan and Delaware. In both states, USDA partnered with local organizations, who distributed the surveys to their mailing lists. Dr. Chanelli then informed the group of the 2010 expanded pilot for a large-scale survey for ALB in 15 states and EAB in 17 states. The 2010 survey moved to a paperless approach, using email and the internet. The 2010 survey started in July and is still ongoing, and averaging about 30 reports a week. Dr. Chanelli then laid out some plans for the 2011 survey.

Citizen Scientists and the Invaders of Texas Program

Damon Waitt, the Lady Bird Johnson Wildflower Center, walked the group through the Texas Invasives citizen scientists program, which is centered around an interactive website (<http://www.texasinvasives.org>) to educate and collect data on invasive species detected. Dr. Waitt noted that 'satellite' groups were vital to the program. The satellite leaders manage their groups of citizen scientists, work with local resource managers on eradication efforts, and organize field trips. The program holds workshops to train volunteers, who can then input detections on the website, which are then plotted onto a map.

Wasp Watcher Citizen Volunteer Initiative in Maine

Colleen Teerling, Maine Forest Service, informed the group of the Wasp Watcher initiative she leads in Maine. The initiative exploits *Cerceris fumipennis*, a native ground-nesting wasp that gathers beetles for food. She explained how volunteers are trained to identify wasp colonies and steal the beetles the wasps' catch as a way to monitor for EAB. She explained that the initiative's volunteers remained engaged because even though there have been no positive EAB detections yet, the volunteers have something concrete to turn in (e.g., other beetles). The US Forest Service had granted funding to expand the initiative in New England and New York, and that states outside of the region are interested. Dr. Teerling acknowledged that the initiative is limited to where the wasps are located, but said there are plans to develop mobile colonies.

Facilitated Discussion

Following the presentations, the discussion focused on how to best engage volunteers and to keep them engaged, how to measure success, and how to act on information gathered.

To try and ensure greater participation, one member suggested that USDA do up-front outreach work before sending out surveys. Dr. Waitt noted that the Texas Invasives program decided to train many volunteers in the hopes that some will participate. This means that not everyone trained is an active participant, something that he feels is a bit of a failure. However, he also noted that having volunteers see the bigger context of their efforts helps keep them engaged. Dr. Teerling re-emphasized that setting her volunteers up for success kept them engaged and minimized attrition.

One member brought up the issue of accuracy of results. Dr. Chanelli explained that the USDA mail survey program does not have enough information to assess that, but noted that high-quality educational materials are provided to members of environmental organizations, which provides some credibility to results. Dr. Teerling's volunteers send in the beetles they gather to be identified, and she stated her confidence in her results.

Each panelist identified a different metric for success. Dr. Chanelli identified the number of responses, as it was a measurement of the outreach effort. Dr. Waitt pointed to incidences of when an agency acts on information collected by a citizen scientist. Dr. Teerling named media attention and press as an indicator of community involvement.

One member asked how monitoring and surveys linked to greater action. All three panelists acknowledged that detection was key in order to take action effectively. Dr. Waitt gave an example of how agencies partnered with a satellite group to eradicate a detected invasive. Both Dr. Teerling and Dr. Chanelli noted their projects engaged volunteers in particular locations so that action can be taken as soon as the invasives are detected.

One member identified SeaGrant efforts to control aquatic invasives as another example of citizen detection.

B. Panel #3 – Firewood

Overview of Campground Visitors Study

Mike Bohne, US Forest Service, presented on the zip code-based surveys of the Forest Service's Forest Health Survey Pest and Outreach Project. The 2009 project asked states to identify two kinds of high risk locations, campgrounds or second homes, with visitors or owners from zip codes within federally regulated infested areas (focusing on the Worcester area). Mr. Bohne then summarized the results of the survey, noting that no ALB was detected. In 2010, the survey expanded to look at EAB and other pests as well. Mr. Bohne explained that the program's success was due to the level of trust and understanding at the local agency level.

Regulating Firewood in NY: Are we just Spitting into the Wind?

Bruce Williamson, New York State Department of Environmental Conservation, explained that the Division of Lands & Forests is very aware of firewood as a vector for invasive forest pests. He briefly noted some of the division's outreach efforts to educate the public about the danger of moving firewood, and then spent the majority of his presentation summarizing New York's firewood regulations, adopted March 18, 2009. He informed the group that there has been a noticeable behavioral shift since outreach started two years prior, and with enforcement of the firewood regulations. He identified the reluctance of campgrounds to turn away people with firewood, and the availability of local firewood as two issues that need to be addressed further.

What's Feeding the Fire? Focus on Firewood! A Private Campground Perspective

Marcia Galvin, Normandy Farm, spoke to the group about the history of her family's farm and campgrounds, and their efforts to keep invasive insects out. She related how the private campgrounds understand the necessity of banning campers from bringing their own firewood. She explained that the Massachusetts Association of Campgrounds adopted a Don't Move Firewood policy in 2010, and that the campground owners understand the need for it, and try to educate their

consumers about the policy. Ms. Galvin informed the group that Normandy Farm is upfront about their firewood policy with their guests, and they have encountered very little resistance. She acknowledged that roadside vendors of firewood have been negatively affected by the firewood ban because they cannot certify their product. She emphasized that all the private campgrounds in the state support the policy in order to protect and preserve the land.

Firewood: The Federal Approach

Ann Gibbs, Maine Department of Agriculture, summarized the recommendations of the National Firewood Task Force. She explained the history of the Task Force, which was formed in Fall 2009 and worked in three different areas: outreach focused on the public, voluntary action focused on industry, and regulatory action focused on government agencies. She highlighted the Task Force's recommendation of a Communications Steering Committee. The Task Force's recommendations were finalized in March 2010 and presented at National Plant Board and National Association of State Foresters meetings. Ms. Gibbs then outlined current implementation actions.

Facilitated Discussion

During the discussion, members offered panelists suggestions on how to better implement firewood practices and policies. One member suggested that campgrounds need to think about what would happen after EAB or ALB becomes established on their lands, and noted that planting more trees and diversifying the tree species will help. Another member suggested including large festivals and other multi-day gatherings in outreach efforts, and working with the organizers to get the word to attendees before the event. Mr. Williamson noted that was a key part of New York's outreach.

In response to a question, Ms. Gibbs explained that the Task Force's recommendation for a federal recording-keeping regulation for firewood would be solely to establish a chain-of-custody so that infested wood can be traced back to the point of origin.

C. Panel #4 – Continental Dialogue Outreach Efforts

Overview of Efforts

Jodie Ellis, Purdue University and a member of the Dialogue Steering Committee, presented a summary of some of the Dialogue's outreach efforts to date. She highlighted the Don't Move Firewood campaign, the documentaries, the Plant Smart campaign, and the Fading Forests Project.

Polling the Public on Problems with Pests and Pathogens

Dave Metz, Fairbank, Maslin, Maullin, Metz & Associates, presented new polling data collected from a phone survey conducted in September 2010. He highlighted the similarities and differences between the results of the 2005, 2007, and 2010 surveys, and emphasized the noticeable change in awareness around the movement of firewood, and how that translates into behavioral change. He identified some of the top messages that resonated with those surveyed, and noted that people were still concerned with trees and recognize the benefits they provide. He stated he was encouraged by the results of the polling, which suggests the Dialogue's efforts have had an impact on people's behaviors.

Developments in the Don't Move Firewood Campaign

Leigh Greenwood, The Nature Conservancy, presented on the Don't Move Firewood campaign, summarizing the campaign's history and some of its efforts. She highlighted the Western

Massachusetts campaign targeted at younger users. While that program was designed to protect Western Massachusetts, the campaign had to operate in a larger area than that it was specifically trying to protect. Ms. Greenwood listed some of the awards the Don't Move Firewood campaign as won, including the WebAward Non-Profit Standard for Excellence Award for 2010. For the future, Ms. Greenwood informed the group of plans for more targeted campaigns, a greater social media presence, and increased outreach to children. All these activities are contingent on funding.

Potential Topics for New Documentary

Martin Hamburger, The Hamburger Company, informed the group of a proposal to develop a series of follow-on documentaries to *Lurking in the Trees*. He showed a rough clip he put together about the impact of the European Grapevine Moth on vineyards in California, as an example of a potential case study for a documentary. He then briefly outlined the proposed documentary topics, and requested that participants provide any suggestions for experts to interview for the documentaries.

Facilitated Discussion

One member cautioned that any messaging should not feed into the perception that cutting down trees is a bad thing. Mr. Metz responded that, according to the polling data, the most effective messaging emphasized the multiple uses forests provide. Cutting trees is sign as a negative when the tree is taken down because it is infested.

Another member suggested addressing climate change in the documentaries, as it increases the invasiveness of pests. Mr. Hamburger acknowledged that the planned message in the documentaries does include climate change.

D. Breakout Sessions

At the conclusion of the panels, the participants moved into breakout groups generally focused on the Dialogue's Initiative efforts and how to advance those Initiatives in 2011. There were two sessions, each with five concurrent groups meeting. The group reconvened in plenary to hear brief reports on each breakout and specifically the next steps they planned to take.

i. Breakout Session: Engage Industry

Jodie Ellis, Purdue University, reported out for the Engage Industry breakout session. The group discussed how to best engage industry, determining that the most effective means would be to approach one or two smaller retail industries and engage them as educators and work to find how to they can address the issue while still making a profit. Ms. Ellis listed the following next steps:

- Deliberate and decide on which industries to approach; and
- Identify some companies that may be receptive, such as companies already involved in natural resource conservation.

ii. Breakout Session: Farm Bill Opportunities and Ideas

Craig Regelbrugge, American Nursery and Landscape Association, reported out for the Farm Bill Opportunities and Ideas breakout session. The group discussed the provisions from the 2007 Farm Bill that were of interest to the Dialogue, and then discussed how to plan for the next Farm Bill cycle. The group heard a presentation from Tom O'Brien on compensation, though did not reach a

consensus definition for what “compensation” entailed. Mr. Regelbrugge observed that there was a lot of interest and enthusiasm in continuing this conversation as part of the Dialogue. He noted that the Dialogue Steering Committee will be assessing how to proceed.

iii. Breakout Session: Many Logs on the Fire – the Dialogue’s Firewood Involvement

Leigh Greenwood, The Nature Conservancy, reported out for the Firewood breakout session. The group discussed a number of topics, including: how the Dialogue can coordinate efforts with the National Firewood Task Force recommendations; different approaches for small and large producers; and how to mitigate the threat without harming small businesses. Ms. Greenwood noted the next step will be to evaluate the Task Force recommendations and determine how the Dialogue can play a role.

iv. Breakout Session: Prevent Introduction - Nursery

Faith Campbell, The Nature Conservancy, reported out for the Prevent Introduction – Nursery breakout session. She noted that this area overlapped with efforts to increase APHIS 10201 funding. She identified an opportunity for the Dialogue to approach this issue via the Q-37 revisions, particularly in post-quarantine activities, and the proposed controlled import permit.

v. Breakout Session: Prevent Introduction – Wood Packaging

Laura Marx, The Nature Conservancy, reported out for the Prevent Introduction – Wood Packaging breakout session. She identified the following three potential activities the Dialogue could undertake to address this pathway:

- Offer incentives in ISPM 15 for entities who have exhibited good behavior, and disincentives (e.g., longer holding period) for those who have exhibited bad behavior;
- Develop a case study of a pest that was introduced via solid wood packaging; and
- Work to improve the ISPM 15 standards for time and temperature thresholds.

vi. Breakout Session: Address *P. ramorum* – Outreach Effort in the East

Ken Rauscher, Michigan Department of Agriculture, reported out for the Address *P. ramorum* breakout session. He noted that this is a controversial issue, and there are other efforts around the country. The group discussed how the Dialogue can best add value to the issue, and continued development of the idea of a spring workshop for regulatory workgroups to provide updates to interested parties, and to provide a forum to discuss other relevant issues (e.g., role of water).

vii. Breakout Session: Explore Citizen-Based Pest Surveys

Jodie Ellis reported out for the Explore Citizen-Based Pest Surveys breakout session. She identified the immediate next steps as inventorying the suite of existing programs and identifying the expertise that exists within the Dialogue. The group decided the Dialogue can provide most value by supporting existing programs, rather than developing its own citizen scientist program. Ms. Ellis listed the following possibilities:

- Developing a lessons learned publication;
- Developing a toolbox for such programs;

- Supporting youth citizen scientist programs; and
- Holding a monthly webinar to showcase different programs.

She noted the need for funding to support such efforts.

viii. Breakout Session: Non-Federal Quarantined Pests (NFQP) – Pest-Specific Link Ups

Faith Campbell reported out for the NFQP breakout session. The group discussed potential Dialogue actions, acknowledging the interlinked and complex nature of NFQPs. She listed the following possible actions:

- Garner more industry support;
- Expand the number of pests the Dialogue addresses;
- Try and get on the agendas for different meetings to highlight the issue;
- Educate on the cumulative impacts of forest pests;
- Analyze industries that have been proactive against pests, and try to determine why they are successful;
- Encourage states to be more aggressive to protect themselves, while taking responsibility for any pests they may export; and
- If necessary to focus on one pest, focus on one that can still be acted upon (e.g., goldspotted oak borer).

ix. Breakout Session: Outreach and Coordination Around Future Documentaries

Frank Lowenstein reported out for the Future Documentaries breakout session. The group discussed the outlines for the proposed documentaries, avenues to promote both *Lurking in the Trees* and any future documentaries, and how to secure funding to produce future documentaries.

x. Breakout Session: Making Choices

Michael Buck, National Association of State Foresters, reported out for the Making Choices breakout session. The group agreed that the Dialogue should show more leadership in the arena of invasive species, and that developing general criteria to help decision makers can be extremely valuable. Mr. Buck will take the lead in drafting such a document.

E. Where Do We Go Next?: Timeline and Actions for 2011

Following the breakout session reports, Senior Mediator Paul De Morgan provided the group with some of the immediate next steps coming out of the Dialogue meeting. The Steering Committee will meet on October 7th to reflect on the meeting and assess the results in deciding what activities the Dialogue should focus on in 2011. Action items from the Steering Committee meeting and a summary of the Dialogue meeting will be made available to participants. Mr. De Morgan noted that the next Dialogue meeting is planned for the Rocky Mountain region in the fall of 2011 and participants will receive more information as it becomes available.

IV. Summary and Next Steps

Frank Lowenstein concluded the meeting with a heartfelt thanks to the meeting attendees for their participation, and the presenters for sharing their knowledge. He again thanked Brandeis University for hosting the meeting. He acknowledged the Dialogue funders for their continued support of the Dialogue and its efforts. And he thanked the Dialogue Steering Committee for their hard work in planning the meeting. He assured participants of his continued engagement, and encouraged them to submit recommendations for The Nature Conservancy new Director of Forest Health.

Paul De Morgan, in turn, thanked Mr. Lowenstein for all his work for the Dialogue and noted that the Dialogue hopes Mr. Lowenstein can indeed remain engaged in the future.