

INVASIVE SPECIES ADVISORY COMMITTEE MEETING

November 12-14, 2014

Holiday Inn Riverwalk
217 N. St. Mary's Street
San Antonio, TX 78205

MEETING MINUTES

FINAL ACTION ITEMS AND FORMAL RECOMMENDATIONS

The following action items and formal recommendations resulted from the meeting:

ACTION ITEMS

Communications, Education and Outreach

Action Item: based on the updated report of ISAC recommendations to NISC, the CEO subcommittee requests that each subcommittee:

1. Review the report
2. Identify essential recommendations
3. Submit those to the CEO subcommittee

to determine if a searchable database is needed.

Control and Management

Action Item: The Control and Management subcommittee will develop a white paper on laws and regulations that focus on the protection of single species and negatively impact invasive species management.

Research and Information Management

Action item: Research committee will prepare a whitepaper on invasive species mapping database standards that fosters communication among NISC agency databases [Chuck Barger to take lead].

Early Detection and Rapid Response

Action Item: EDRR subcommittee will update and complete a list of invasive species state and U.S. territory contacts for use in developing a national EDRR framework.

Organizational Collaboration

Action Item: All ISAC members should review the National Invasive Species Management plan for 2008-2012 and provide recommendations to NISC staff on additions, deletions or edits to be included in the new Management Plan by December 15, 2014.

FORMAL RECOMMENDATIONS TO NISC

Recommendation 1.

Recognizing the value of the Invasive Species Working Group established recently under the United States-New Zealand Joint Commission on Science and Technology Collaboration, ISAC recommends that

NISC Agencies pursue and support similar opportunities under other existing bilateral and multi-lateral science and technology collaboration agreements for research cooperation on priority invasive species issues of common interest.

Recommendation 2.

Given that Asian Longhorned Beetle (ALB) is one of the most damaging invasive forest pests currently threatening North America; that it has been successfully eradicated from five sites nationwide; and that only three known localized infestations remain (MA, NY, OH), ISAC recommends that to ensure successful eradication the U.S. Forest Service, the Animal and Plant Health Inspection Service and other NISC agencies share information to perform risk-based Early Detection Surveys for ALB in high risk areas outside current quarantine zones.

GENERAL SESSION PROCEEDINGS

DAY 1: Wednesday, November 12, 2014

ISAC MEMBERS PRESENT:

ROBERT WILTSHIRE (Chair)
SUSAN ELLIS (Vice-Chair)
NATHAN STONE (Secretary)
CHARLES BARGERON
JERRY COOK
PHILIP COWAN
TAMMY DAVIS
JOSEPH M. DITOMASO
OTTO DOERING, III
BONNIE HARPER-LORE
KATHERINE HOWE
WILLIAM HYATT
ERIC LANE
JANIS McFARLAND
MARSHALL MEYERS
CAROL OKADA
STEPHEN PHILLIPS
ROLAND QUITIGUA
DAVID E. STARLING
JOHN PETER THOMPSON
WILLIAM TOOMEY
ROBERT VAN STEENWYK
DAMON E. WAITT
KENNETH ZIMMERMAN

Invasive Species Action Network
California Department of Fish and Wildlife
University of Arkansas at Pine Bluff
University of Georgia
Sam Houston State University
Landcare Research
Alaska Department of Fish and Game
University of California, Davis
Purdue University
Restoration Ecology Consultant
Midwest Invasive Plant Network
Connecticut Dept. of Environmental Protection
Colorado Department of Agriculture
Syngenta Crop Protection, LLC.
Pet Industry Joint Advisory Council
Hawai'i Department of Agriculture
Pacific States Marine Fisheries Commission
University of Guam
Aqueterinary Services, P.C.
Invasive Species Consultant
The Nature Conservancy
University of California, Berkeley
University of Texas at Austin
Lone Tree Cattle Company

COMMITTEE MEMBERS ABSENT

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|-------------------|--|
| JOSEPH BISCHOFF | American Nursery and Landscape Association |
| PATRICK BURCH | Dow AgroSciences |
| PHYLLIS JOHNSON | University of North Dakota |
| EDWARD MILLS | Cornell University |
| DAVID REID | Invasive Species Consultant |
| TIMOTHY SCHAEFFER | Pennsylvania Fish and Boat Commission |

NISC STAFF AND POLICY LIAISONS PRESENT

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|----------------------|-------------------------------------|
| PHILLIP ANDREOZZI | NISC Staff |
| KELSEY BRANTLEY | NISC Staff |
| STAS BURGIEL | NISC Staff |
| CHRISTOPHER DIONIGI | NISC Acting Executive Director |
| MARGARET “Peg” BRADY | U.S. Department of Commerce (NOAA) |
| WILLIAM MILLER | U.S. Department of Defense (Acting) |
| SUSAN PASKO | U.S. Department of Commerce (NOAA) |
| HILARY SMITH | U.S. Department of the Interior |

WELCOMING REMARKS

Stuart Kuehn, TX State Plant Health Director, U.S. Department of Agriculture (APHIS-PPQ)

- APHIS mission is to safeguard agriculture and natural resources from IS, including imports and exports. NISC goals mirror much of what APHIS does. The office is proactive, yet deals with many IS. It consists of 15 offices, 200 employees. The 2 plant inspection stations in Texas are important as 1 out of 7 people in Texas are employed in the agricultural field.
- Recently there has been \$12M for 29 Cooperative Agreements across the state, working with first responders for EDRR. Mediterranean fruit flies, EAB, cactus moth, onion weed, giant hog weed, African land snail, gypsy moth, are major concerns.
- In the future, APHIS must figure out how to leverage the youth to look at IS and how they can become involved. APHIS has been active participants in the CAPS system. One agreement in TX reached out to high school students to do survey work in nurseries.
- APHIS has also utilized ICS exercises to create IS introduction scenarios and decide how to react.
- Report tools have been built into websites and other educational tools; receive 1-2 reports per month from the public as a result. Tribal outreach helps to engage collaborators and educate.
- Challenges (and opportunities) include: Texas / Mexico border has the highest number of illegal crossings, resulting in increased imports, leading to the need to provide additional support for identification services. 4 of 7 of the largest ports in the south are located in Texas, APHIS provides cargo inspections. About 55% for the “urgents” comes through Texas.
- In regards to IS in residential and urban settings, APHIS has been involved in biocontrol programs, e.g., bait stations for fruit flies in effort to reduced pesticide use.
- Thanked NISC and ISAC for the work that they do and look forward to assisting its goals.

Questions/Comments:

Q: (Ken Zimmerman): APHIS has stopped testing animals less than 12 months of age for nervous disorders – asked to expand on rational.

A: Cannot expand on, not his area of expertise, offered POC for more information.

Q: (Bonnie): Interested in hearing what APHIS needs, think of ISAC as a new partner. Do you have any partnerships with Mexico in terms of IS control / prevention.

A: Work closely with Mexico agencies. APHIs has a branch of international services. When a threat is perceived, investigate what monitoring / controls are needed and put into place. Started conversations with rail companies, not as deeply involved as APHIS should be— should be moved to leadership to stronger enforce.

Olivia Ferriter, Deputy Director, Office of Policy Analysis, U.S Dept. of the Interior

- Here today representing Lori Faeth (Deputy Assistant Secretary for Policy and International Affairs)
- DOI houses the NISC staff as a result of the EO. Lori Williams, NISC Director, retired earlier this year. Chris Dionigi will be acting until this position can be filled. Hillary Smith has been selected as the DOI invasive species coordinator and policy liaison, stepping into the role of Gordon Brown who previously retired.
- Invasive species has become a central issue, as impacts are seen everywhere. More attention has been paid on the issue itself in connection with other issues; e.g., climate change, landscape management, renewable energy development. DOI developed an invasive species Action Plan, finalized in January 2014. Hilary will be speaking to the specifics and plan for implementation. The plan highlights the need to raise invasive species to a higher level and engage leadership. The Plan recommends to have a DOI task force to raise awareness and increase coordination. The task force will be taking a close look at improving BMPs and databases.
- There also is possible involvement with President's Climate Action Plan. DOI would like to encourage (a possible contest) innovators to transform databases into apps. Also as part of climate initiative, call for EDRR framework. Could use suggestions from ISAC on how to establish and manage an EDRR network.
- OMB has asked DOI to do a better job of describing science enterprise. This will aid formulation of budget and help identify activities "outside the box" for science coordination across DOI. New hire (from OMB) to analyze science coordination and integration. This new position will also focus on reducing impacts to natural resources from energy development.
- DOI plans to increase use of ISAC, raise profile of NISC and ISAC, and do a better job of science coordination across DOI. Finally, DOI will prepare to transition of NISC from the final years of Obama's last two years and into the new administration in 2016.
- IS issues will remain a huge issue, DOI hopes for better communication, more strategic approaches, being smart about using resources (becoming more holistic rather than focusing on specific species). Can complete a lot of work in two years as well as prepare for transition of new Administration, ISAC plays an important role in making that happen.

Questions/Comments:

Q: (Bill Hyatt): Regional ANSTF Panels are charged with coordination, yet panel funding has been reduced. Can DOI assist panels as part of initiative to increase coordination?

A: If money is available, assistant may be possible (e.g., grant program, cooperative agreement)

NISC STAFF REPORTS AND NISC RESPONSE TO ISAC RECOMMENDATIONS

Chris Dionigi, Acting Executive Director NISC

- 1) Recommendations for IS incentive Programs: being incorporated into outreach materials

- 2) Recommendation for NISC Outreach / Communication Specialist: The retirement of Lori Williams is allowing NISC to prioritize future new hires, will closely examine skill set of future positions.
- 3) ISAC recommendations on the USFS Forest Service Management Handbook: Work has been transferred to FS, edits and suggestions are being closely examined as FS works towards a final product. Actual recommendation from ISAC focuses on the process, which is being considered for future products. It will allow ISAC to take on much broader and larger scale projects.
- 4) Working with OSTP and other agencies to enforce the importance of systematics. NISC is trying to comply with OSTP regulations and incorporate IS.
- 5) Recommendation to hire new Executive Secretary for ANSTF: Laura Norcutt has been acting. Don McLean recently took over the role. No immediate plan to open a new position, yet FWS is taking the recommendation under consideration.
- 6) NISC is streamlining agency review of NISC management Plan. The Plan will be passed back through writing committee for final draft; hope to go to public review soon. It may be possible to incorporate ISAC comments, yet may delay plan finalization. NISC will consider when / if ISAC input would be appropriate. Plan finalization must go from agency review to assist OMB clearance.

Questions/Comments:

Q: (Kate) How can ISAC ensure recommendations are being reflected in NISC management Plan?

A: Recommendations stand until they are revoked. Official recommendation by ISAC stand as their position, and it should be reminded they are on record. Recommendations are a form of dialogue; e.g., recommendation regarding biofuels led to action to produce a biofuels whitepaper in 2008. When EPA issues proposed rule for *Arundo donax* as a biofuel source, whitepaper and ISAC recommendations served as valuable tool and were incorporated in EPA's final rule.

Q: (Marshall) Will public review go through FR?

A: Yes.

Phil Andreozzi, Deputy Director for Regional Initiatives

Leading NISC efforts on NISAW 2015 (Feb. 22 – 28, 2015). NISAW Will continue to be a worthwhile effort, as it is a fantastic outreach opportunity. Many concurrent activities in states. DC activities include, webinars, seminars, kids' day, awards ceremony. If interested in assisting, please contact Phil.

- Arctic: National Strategy / Arctic Implementation Plan includes IS efforts with recommendations under the Arctic Council. Some IS issues overlap with U.S. Strategy. Working together to ensure activities move together cohesively rather than independently.
- International issues: in the Micronesia, Biosecurity Plan, language was added to link IS to climate, biodiversity, ecotourism, etc. Micronesia has made commitments to incorporate IS issues as part of Biosecurity Plan. (\$4M and 80,000 people are involved). IS are no longer being pigeonholed, Pacific Islands are now calling for acknowledgement of this fact and requesting action. Advisory Committee out of Pacific was modeled after ISAC. Working with Dept. of State to enhance corporation of science sharing with various counties, DOS interested in expanding these opportunities.

Stas Burgiel, Deputy Director for Prevention and Budgetary Issues, NISC

- Convention of Biological Diversity has been working on guidance for escape of pets, bait, and class room animals and supports counties working on these pathway. Numerous counties agree to this guidance. Convention is moving on to address other pathways.

- The work on Free Trade agreement involves 11 countries around Pacific ring and agreement with European Union. NISC was been working to make sure IS issues are being incorporated. World Bank revising safeguard standards, in second year of long process. NISC made sure IS were addressed intern is risk assessments and reducing possibility of spread. All regional banks now have IS policies on the books.

MEMBER UPDATES

Hilary Smith, U.S. Department of the Interior. Smith has been recently hired by DOI, and comes with a strong background in invasive species prevention and control. She previously served as invasive species Coordinator in NY with The Nature Conservancy and (Partnership for Regional Invasive Species Management) PRISM coordination. Worked with over 30 organizations and hundreds of volunteers, saw many success stories. She helped develop NY state program for IS working with state and nongovernmental partners to write the blueprint for action. They implemented all 12 recommendations, including securing invasive species funding in the state's environmental budget. Examples of recent activities included understanding the role of boat inspection and decontamination, developing best management practices, and undertaking an economic impact study. Smith started at DOI on October 20, and plans to bring many of the same principles to DOI and NISC.

In the year ahead, she will be involved with a number of initiatives, including the implementation of the DOI Invasive Species Action Plan which will help coordinate action, create efficiencies and raise awareness of invasive species issues. Smith will be assembling the DOI invasive species Task Force which will be charged with developing a DOI invasive species policy, coordinating information management, and developing an EDRR network. She will work to support initiatives in the Climate and Arctic Strategies and move forward recommendations of the Federal Lands Policy Working Group to reduce transport of invasive species on / off federal lands.

Reports from specific DOI Bureaus (*See slides for full detail – to be posted with ISAC meeting materials*)

- BIA: Received funding to establish grant program for invasive species control
- BLM: Invasive species education with Wildlife Forever; AIS monitoring in Oregon. Eradication of bullfrog in Yellowstone. Working on EIS to list 3 additional pesticides for invasive species control.
- BOEM: Conducting invasive coral study in Gulf of Mexico
- BOR: Improving performance standard for AIS control, continues survey work of salvinia and *Dreissand* monitoring. Number of new publications on *Dreissenid* mussel detection.
- NPS: Contributed technical guidance to Feral Swine impact statement, proposed listing for constrictor snakes and development of invasive plant management plans. Increase database efficiency. Co-lead Asian carp coordination within Upper Mississippi and Ohio River Basins.
- FWS: Co-chair of ANSTF. New Partnership with ABYC – summit to be held in January, 2015. Co-authored paper with NOAA on harvest incentives, Co-lead with NPS Asian carp control. Continue work on Lacy Act listings and revision.
- USGS: Published guidance on ED of invasive plans with NPS. Populating multiple information systems, continued work on Asian carp prevention and control, working on containment strategies for invasive lizard populations in Florida.

Bill Miller, U.S. Department of Defense. DOD's invasive species program manages land for military activities, so management of IS is slightly different. IS is an operational concern – DOD is not as concerned on impacts as much as making sure counties permit entry of cargo and other supplies into and out of counties. Use CISMAs to work collectively with multiple agencies. DOD invasive species toolkit is available online (dodinvasives.org). Site contains a list of species of concern (e.g., feral hogs impact tank operations and training; red Imported Fire Ants populations must be controlled as present risk to human health and also threat to T/E species; cheat grass impacts fire regimes; coconut rhinoceros beetle first discovered at military base in Hawaii, possible came in with military cargo.) DOD manages to support nation defense requirements.

DOC and USDA member updates moved to afternoon session.

DAY 1 PRESENTATIONS

Texas Invasive Species Institute

Jerry Cook, Sam Houston State University (ISAC Member)

Texas Invasive Species Institute addressed the void in groups working on IA issues. The university systems consists of 8 institutions, encompassing many ecological zones in the state with emphasis on coastal Gulf systems. 40 faculty are involved in addition to 6 staff and several grad students. Mission is to incorporate all aspects IS management, center of works focuses on all components of IS and other environmental issues. Database and outreach materials on web (tsiinvasives.org). Center is funded by institutions and includes funding for EDRR teams, GIS, analytical lab (toxicology, water quality studies), molecular genetic lab (eDNA, sequencing), museum collection (taxonomy), toxicology lab (bait research), economic analysis.

Examples of Activities:

- EAB surveys (collaborative effort); EAB trapping used to model ash tree location in relation to EAB traps, no EAB found but identified 34 other wood boring beetle species - data was modeled to infer information about these beetle populations.
- Suckermouth Catfish reducing vegetation in streams. Study is investigating ecosystem impacts.
- Freshwater snails, newly identified invasive in TX that carries parasite that can be fatal to native fish.
- Texas National Guard Environmental Management Program – developing programs for managing resources.
- Water quality analysis at 4 facilities, including IS monitoring.
- Zebra mussel detection and impacts to native endangered mussels. Investigating life cycle of native mussels and how impacted by zebra mussels.
- Red Streaked Leafhoppers carry phytoplasmas that impact sugarcane (proposed for use as biofuel). Survey found that leafhoppers make up about 80% of insect populations in survey sites, none yet found to carry phytoplasmas. King Ranch Bluestem appears to be preferred host, popular plant throughout Texas. Management strategies many be used as a control strategy to keep leafhoppers away from sugar cane. An economical analysis in Louisiana modeled the movement of leafhopper and impact to sugar cane industry. Research on parasites may be used as biocontrol strategy.

Integrating Science, Agro-ecosystems, Conservation University of Texas at Austin of Nature and Public Policy in Managing Harmful Invasive Species

Lawrence Gilbert, University of Texas at Austin

- Ranching and hunting is evolving into a farming mindset in which there is a strong attraction to nature and a desire to conserve intact ecosystems to maintain biodiversity. Much of University of Texas IS funding comes from private ranching industry.
- Problem with IS is prioritizing, as we cannot manage everything. Different agencies often view IS management differently. Often environmental biologists have difficulty influencing policy and management decisions, more funding is needed for applied research to solve management questions.
- Larry provided details on several ongoing research studies that have influence in IS management (*see slides for detail*).

Q: (Phil) Cactus moth – example of being imported. Is it in the here (Texas)?

A: No, not yet detected past Mississippi.

LEGISLATIVE UPDATE

- There is an IS Caucus in House of Reps. ISAC is invited to reach out to congress delegates to become involved. No similar group in Senate.
 - HR 994: Dropped in February. Lori Williams testified at hearing along with FS. Legislation is looking at all invasives, sets forth allocation for federal budgets for control vs. administration costs. Brings into question how to categorize spending. No co-sponsors of the bill at this time.
 - Lacey Act listed only Zebra mussels, not quagga. Looking at listing quagga though legislation rather than Lacey Act process.
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NISC MEMBER UPDATES (con't.)

Peg Brady, U.S. Department of Commerce (NOAA); Aquatic Nuisance Species Task Force.

IS issues are being considered in NOAA Habitat Blueprint Focus Areas. 7 focus areas have been identified, 3 additional areas will be announced by year's end.

- HACCP Training has been ongoing, next trainings in December 2014 (NEANS Panel) and April 2015 (NOAA workshop).
- Next NOAA AIS Workshop will be held in Santa Cruz, CA in April 2015. Focus on developing regional teams to manage AIS.
- National Marine Sanctuaries are in final stages of drafting an action plan to manage lionfish.
- Work with ANSTF include: Report to Congress, Participate in Lionfish Plan development, Supported Invasive Tunicate Workshop (leading to possible biofouling management plan), representatives in ANS Regional Panels.
- Work with NISC: participate in cross-cut budget, NISC Management Plan, assisted development of ISAC white paper on incentive programs.
- NOAA Fisheries webpage highlighted invasive species issues in July, 2014.
- Regional activities include – Western management plan for Sacramento-San Joaquin River Delta, research on *Watersipora*, lionfish research and control in Atlantic and Gulf, research on link between invasive species and HABS.

ANSTF:

- Lionfish plan and Snakehead plan will be put into the FR for public comment.
- Ongoing efforts to revitalize Habitatitude
- David Lodge is currently a Jefferson Fellow for the Department of State.

John Peter Thompson (representing Hilda Diaz-Soltero, U.S. Department of Agriculture)

- Details on FY funding for individual invasive species projects and programs.
- APHIS – addressing systematics shortfalls by hiring 24 new pest identification personal, 5 new national taxonomists – to help identify new species as they arrive in U.S.
- CAPS detection program – strengthen invasive species detection services. Conducted several taxonomic surveys in 52 states / territories. Total of 21 species were detected and categorized as new or re-introduced.
- FS – found IS on 2/3 of federal lands. Surveys detected 305 invasive species. (link to full report available).
- Part of Wildlife Habitat Council’s IS advisory group and working on action plan.
- USDA report on IS, 2015 grant report is under development. Do NO Harm report in being prepared.

DAY 2: Thursday, November 13, 2014

OFF-SITE (FIELD TRIP)

DAY 3: Friday, November 14, 2014

ISAC MEMBERS PRESENT:

ROBERT WILTSHIRE (Chair)
SUSAN ELLIS (Vice-Chair)
NATHAN STONE (Secretary)
CHARLES BARGERON
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WILLIAM HYATT
ERIC LANE
JANIS McFARLAND
MARSHALL MEYERS
CAROL OKADA
STEPHEN PHILLIPS
ROLAND QUITIGUA
DAVID E. STARLING
JOHN PETER THOMPSON
WILLIAM TOOMEY

Invasive Species Action Network
California Department of Fish and Wildlife
University of Arkansas at Pine Bluff
University of Georgia
Sam Houston State University
Landcare Research
Alaska Department of Fish and Game
Purdue University
Restoration Ecology Consultant
Midwest Invasive Plant Network
Connecticut Dept. of Environmental Protection
Colorado Department of Agriculture
Syngenta Crop Protection, LLC.
Pet Industry Joint Advisory Council
Hawai'i Department of Agriculture
Pacific States Marine Fisheries Commission
University of Guam
Aqueterinary Services, P.C.
Invasive Species Consultant
The Nature Conservancy

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| ROBERT VAN STEENWYK | University of California, Berkeley |
| DAMON E. WAITT | University of Texas at Austin |
| KENNETH ZIMMERMAN | Lone Tree Cattle Company |

COMMITTEE MEMBERS ABSENT

| | |
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| JOSEPH BISCHOFF | American Nursery and Landscape Association |
| PATRICK BURCH | Dow AgroSciences |
| JOSEPH M. DiTOMASO | University of California, Davis |
| PHYLLIS JOHNSON | University of North Dakota |
| EDWARD MILLS | Cornell University |
| DAVID REID | Invasive Species Consultant |
| TIMOTHY SCHAEFFER | Pennsylvania Fish and Boat Commission |

PRESENTATIONS

The North American Invasive Species Network (NAISN)

Don Schmitz, Florida Fish and Wildlife Conservation Commission

- Ten lessons from Florida's successful Invasive Plant Management Program.
- Lack a led Federal agency to meet research managers needs for IS,
- NAISN's overall goal is to link IS issues into a coordinated, science-based effort.
- NAISN consists of hubs (regional) and nodes (specialist, associated with hubs). Currently total of 6 hubs and 4 nodes.
- Existing services include information technology, research and mapping, education, databases and websites, etc. Includes a CDC-like website.
- With appropriations of federal government and additional funding, NAISN can expand. Potential to the lead coordinating entity on IS management. (Public lands and waterways)

Areas for NAISN to assist:

- Need to connect the dots in IS, rather than looking at specific species.
- Recommend 1) track IS expenditures (by each state); 2) determine what IS actually threatening; 3) conduct, fund, track, and coordinate IS funding.
- Prioritize IS management: to make CDC-like recommendations based on science, collect and interpret information in IS risks, use risk analysis to identify, access, and prioritize new threats, and identify gaps in knowledge to guide establishment of research priorities.
- Develop realistic management goals for each species. Develop recommendations if quarantine, eradication, or maintenance. Develop protocols for emergency quarantine (e.g., ports of entry)
- Help with EDRR. Usually performed at state level. Need federal coordination and emergency funding. Also need technical assistance and guidance and training. Work with public to develop reporting tools.
- Local participation: establish partnerships within all states.
- Help coordinate and disseminate research: Track research, encourage research on Is pathways, increase and expand webinars to disperse current research, develop an IS watch list for each state.
- Help address impacts from IS to climatic shifts
- Help establish a national public awareness campaign

Questions/Comments:

Q: (Eric Lane): Why are actions only directed toward PCLs?

A: Private lands can act as seed source, but tax payers disagree with spending money on private lands. PCL can provide guidance towards private land owners. Agricultural species is being managed by USDA.

Q: (Marshall Meyers). Much is being done at Federal level, although there is a need for coordination. How would NAISN provide that at a national level? What are you asking ISAC for as a recommendation to NISC?

A: Expanding NAISN to include all regions and all taxa; there is a need for local people on the ground doing the work. NAISN will help ring funding to the local groups to help manage IS. Not much has changed throughout the years for IS management, new problems keep emerging, - need for improved screening and education.

National Invasive Species Strategy of Mexico

Isabel Gonzalez Martinez, CONABIO

- National Commission for Knowledge and Use of Biodiversity (CANABIO) was founded in 1992. Main objective is to maintain the national system on biodiversity. It is an advisory committee to the government. Funds to support researchers and is a scientific body for CITES. Open source of information to the public. Working on IS since 2000, formal strategy formed in 2007.
- Challenges include: information is difficult to access. Yet strong interest in coordination and collaboration
- Strategy identifies 5 goals for IS management
- Grant was awarded to implement the strategy (yet had to fund funds for match).
- Many entities are involved. Mostly from the environmental sector. Include federal, state, NGOs, and universities. Looking to expand members.
- 2 goals: improve decision management tools, and provide guidance and regulation.
- Official IS list for Mexico: without list the government cannot take action. Recent change in the law as the first mention of IS and allowed publication of list.
- Need for rapid screening method that was applicable to all taxa that was present in Mexico and at risk for introduction. A process developed a database that scores species.(So far it has scored 476 species out of 1961). Anything scored as high or very high risk is place on list.
- Categories on list: 1) not in Mexico (prohibit entry) , 2) In Mexico (emphasis and containment and control) and, 3: List of islands and other priorities areas (keep existing invaders out of this area)
- National IS Information System: Contains information on the base list 1961 species. Included reference, maps, current research. Information on distribution and impacts.
- Established baselines: protected areas, islands, legal framework, EDRR
- Current projects include: lionfish, white nose syndrome, zebra/quagga, and wild boar. (pathways, control methods, baseline analysis)
- Outreach is also being worked on: websites, social media. Also training personnel on ICS.
- Activities on international level, as access to information and research are key to management.

Questions/Comments:

Q: (Bonnie Harper-Lore): The biodiversity maps define priority ecosystems and how IS are moving. Can you describe the inventory piece?

A: Staff works on developing maps using satellite, gap analysis studies, etc. Maps are become automated to produce models so that users can get information in real time.

Q: (Chris Dionigi) Are there joint training opportunities for ISC?

A: Yes, for example zebra mussel will need to be a cross border effort. Developing software for online training that can reach broad audiences.

Q: (Stas Burgiel) Do you have any thoughts on bilateral collaboration?

A: Within Mexico, lack of collaboration is a main issue. Working with several organizations to improve. NAISN may be a good model, yet efforts are also needed at the federal level. One the species list in complete, Mexican government will need to take action and collaboration will need to be expanded.

Q: (Marshall Meyers) Risk Assessment processes are challenged by lack of water parameter data. Does Mexico have any solutions?

A: Also an issue for aquatic in Mexico, working on finding a solution.

SUBCOMMITTEE REPORTS

Prevention

Narrow down focus on white paper on trade issues. To include policy background, case studies, resources, and recommendations.

No action items or recommendations for this meeting.

Education and Outreach

Considering a white paper on national outreach campaign. Additional information gathering is needed before moving ahead. Also discussed lack of policy liaisons at meeting, considering a one pager to increase involvement.

Action Item: Each subcommittee to review recommendations and identify essential recommendations to be included in database.

Control and Management

Continue to work on Biocontrol whitepaper, the committee intends to have draft for next meeting

Action Item: Develop a white paper on laws and regulation that focus on the protection of single species and negatively impact IS management

Research

Exploring additional information for recommendations in systematics

Recommendation: Recognizing the value of the IS Working Group established recently under the US – New Zealand Joint Commission on Science and Technology Collaboration, ISAC recommends that NISC agencies pursue and support similar opportunities under existing bilateral and multi-lateral science and technology collaboration agreements for research collaboration on priority IS issues of common interest.

Action Item: prepare white paper on mapping database standards that fosters communication among NISC agency databases.

EDRR:

Action: Update and complete list of state and territory contacts for use in developing a national EDRR network.

Organizational / Collaboration

Will review as revise ISAC by-laws are appropriate. Reviewed ISAC white paper on IS definitions; would like to consider clarifying the term “net harm”.

Action: ISAC Subcommittees should review the NISC Management Plan for 2008-2012 and provide recommendations to NISC Staff on additions, deletions, or edits to be included in the new management Plan by December 15, 2014.

(Chris Dionigi suggested moving back to mid-December, since comments should be submitted individually to be FACA compliant. NISC will receive all comments and consider in final draft development).

ISAC HOUSEKEEPING

- Potential dates for next meeting (May or June 2015). Looking at Mid to Early June in DC. Kelsey to scope location.
 - New officers: no additional nominations. Chair: Bob Wiltshire. Vice: Eric Lane.
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PRESENTATIONS (con't.)

Endocides, A new technology for IS Control

Dr. Shiyu Li, Stephen F. Austin State University

- Secondary Metabolites – Once considered waste, now recognized as a defensive mechanism. Some IS may produce toxic metabolites that impact native species and/or ecosystems.
- Research involves 3 parts: biosynthesis, application, and mechanism of action
- Biosynthesis: morphological change can occur when chemical salvinia levels rise.
- Application: selective toxicity (tea brick, dry plant matter, and salvinia water extracts can be used to control populations; ethanol extracts of tallow tree stems may be used as treatment of Chinese Tallow Trees, Chinese privet, Cresting floating heart, hogwort, tree of heaven, kudzu, and others).
- Endocide: a biocide derived from a toxic agent that does not impact normal growth...
- Application frequently caused morphological changes (similar to pruning).
- Below normal growth, lead to diseases. Above, lead to induced autotoxicity.
- Endocides: add nothing new to ecosystem, highly selective, avoid pesticide resistance problems.

Questions/Comments:

Q: (Janis McFarland): Did any of the plants that escaped, were they retreated and were differences found?

A: Similar levels of efficacy were found, similar resistance

Q: How did you establish safety standards for extracts?

A: Environmental Toxicity Tests were performed. Not yet tested for human safety.

Q: (Bonnie Harper-Lore) Are treatments useful for aquatic and terrestrial plants?

A: Likely useful for both

Summary of LEAF Alumni Tree Health Tracking

Bill Toomey, The Nature Conservancy (ISAC Member)

- Healthy Trees, Healthy Cities is a new program of TNC to involve public.

- 6 prong approach (collaborations, use science to inform action, provide trainings, engage communities, empower and engage youth, public outreach).
- TNC Urban strategies – expanding into additional cities, totaling 13 cities nationwide.
- LEAF Alumni Tree Health Monitoring Internship. Hundreds of youth have gone through the program in high school, this is the next phase that those leaders can now mentor peers as conservation professionals.
- Hired 4 students for 8 week internship. Work included monitoring tree health. Also took on projects to raise awareness of urban nature.
- Interns are ask to work in Brooklyn around Prospect Park to monitor tree health, looks for signs of EAB and ALB, restored areas where trees were impacted by Hurricane Sandy, executed volunteer training.
- TNC developed a system to evaluate tree health; TNC hopes system will become a national tool. Also developed checklist of signs of EAB and ALB infestation. LEAF interns were essential in development and testing of these tools.
- Data collected is used by LEAF educators, Nature Works Everywhere, iMap Invasives (and similar), national and industrial partners, government organizations.
- In the future, program will be applied to 13 cities. Looking for additional partners to engage public and youth on urban issues.

Questions/Comments

Q: (Bonnie Harper-Lore) Do urban forests include parks?

A: Yes, looking at entire Metro area

Q: (Peg Brady) What the was criteria for selecting the 13 cities?

A: Funding was enough to hire 10 employees. Internal process – TNC selected cities from its chapters from those interested in participating in the project. Selection was based on location, expertise, and commitment.

Update on Asian Longhorned Beetle

Brian Said, The Davey Tree Expert Company

- Asianlonghornedbeetle.com – resource for information on the species. Included maps on areas of infestation, quarantine zones, eradication areas.
- Has not been an infestation in Long Island quarantine zone since 2008. Surveyed daily.
- In Ohio, additional infestations continue. Work on location of quarantine areas continues.
- In Wooster, MA all infested trees have been removed. Has surveyed 4 million trees, resulting in huge dataset that can be used for modeling and risk analysis.
- ALB control can be accomplished. Need to be proactive by looking at high risk areas.
- FS has created risk based maps, but has yet to include urban forests; Current efforts are trying to include this data.

Suggested Recommendation: NISC agencies should share information and perform national, risk-based Early Detection Surveys for Asian Longhorned Beetle (ALB), particularly in the urban environment both within high risk areas and outside current quarantine zones, with the goal of finding and halting all ALB infestations.

Questions/Comments:

Q: Are surveys within and outside quarantine areas as well as urban vs, rural already common practice?

A: Much effort is put inside quarantine areas, efforts outside should be increased.

Q: By endorsing recommendation, are we opening NISC up to similar recommendations for other species?

- **John Peter Thompson:** ISAC once targeted Crazy Ants, so species have been singled out before.
- **Phil Cowen:** Is there a gap in monitoring that can be addressed, rather than focus on single species?
- **Bill Hyatt:** ALB efforts have been a success, ISAC should give support
- **Bob Wiltshire:** ISAC has traditionally not given a recommendation at the same meeting it was presented in order to give time to reflect. Recommend delaying recommendation to next meeting
- **Chris Dionigi:** Speaks to prevention and EDRR, option may be to use the species specific program used as a model for other species. Option may be a limited recommendation and work for subcommittees to apply success to other species.
- **Carol Okada:** Is there a mechanism for EDRR already established in the other states?
- **Damon Waite:** Support diverting resources to ALB, yet need statement to state why this species is being supported above others.
- **Phil Cowen:** Can you clarify is NY is the only state where ALB remains
 - A: OH, NY, and MA have infestations. Has been eradicated in others
- **Bill Hyatt:** Can we approve in context and re-clarified at a later date.
 - A: Only minor wordsmithing can be done later, not clarification or additions
- **Stas Burgiel:** Discussions in research committee to have a recommendation approved before next budget cycle, this recommendation could be delayed and combined with that discussion.
- **Phil Cowen and Bonnie Harper-Lore:** Agree sentence should be added to state why this species is being addressed above others.
- **Hillary Smith:** Should we choose applicable agencies rather than address to all NISC member agencies?

(Short break while small group revised recommendation to reflect this discussion).

REVISED Recommendation: Given that Asian Longhorned Beetle is one of the most damaging invasive forest peats currently threatening North America; that it has been successfully eradicated from five sites nationwide; and that only three known localized infestations remain (MA, NY, and OH), ISAC recommends that to ensure successful eradication the US Forest Service, Animal and Plant Health Inspection Service, and other NISC agencies share information to perform risk-based Early Detection Surveys for ALB in high risk areas outside current quarantine zones.

Q: (Kate Howe) For re-invaded areas: Was it a re-introduction or not detected when quarantine ended?

A: Thought to be missed organism during survey work.

Q: Does this mean it may be premature to close other quarantine areas?

A: APHIS Standard is that organisms must be undetected for 3 cycles (generations) before quarantine is closed.

Intergovernmental Platform on Biodiversity and Ecosystem Services

Phil Cowan, Landcare Research (ISAC Member)

- Services are equivalent to the IPCC, which been influential on national and global scales. This group may do the same for biodiversity
- Decision makers need scientifically credible information and effective methods to achieve results.
- IPBES – established in 2012. Open to all member countries of the UN.

- 4 objectives that focus on strengthening the capacity of science-policy interface in regards to biodiversity and ecosystem services.
 - Call for nominations for member counties to be part of IAS scoping project.
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ISAC HOUSEKEEPING

- 1) Suggestion to include picture and bio on ISAC webpage. To be used as a “who’s-who” for new members and help public identify experts.
 - Although useful to get to know individuals, ISAC members generally not supportive as low utility and unwillingness to release personal or contact information.
 - Options proposed: Include bios in printed form as part of new member orientation. (Already given electronically as part of materials for last meeting). Kelsey has document and able to make revisions.
- 2) Asked for feedback on agenda. Was time for sub-committee meeting adequate?
 - Tammy Davis: Is it possible to switch up what committees meet at the same time.
 - A: Need suggestion for what should be grouped. Perhaps complete a survey with what two committees each member would like to participate in to assist configuration of subcommittee schedule.
 - David Starling: Can committee groupings be shuffled from one day to the next?
 - A: Steering Committee will need to be discuss.
 - Roland Quitigua: That was a suggestion for this meeting, did not occur.
 - A: Challenge is that as chair goes through agenda, information may be missed if members in attendance change.
- 3) Ken Zimmerman: Many topics within subcommittee do not address objectives in NISC Management Plan.
 - Damon Waite: as plan evolves, subcommittees will also need to evolve in order to stay connected. (e.g., restoration should have a subcommittee if a goal; education and outreach should be incorporated into all subcommittees rather than an individual committee).
 - Bob Wiltshire: The new management plan should be available by next meeting. Subcommittee should be re-evaluated at that time (determine what committees should continue / be formed, as well as actions by committees).
 - John Peter Thompson: Should current actions continue since unsure if will support the new Plan?
 - Bob Wiltshire: Even if actions do not support the new plan, they should continue.
- 4) Should presentation template be revised?
 - Not necessary at this time
- 5) Steering Committee nominations. Approved.

SUBCOMMITTEE NOTES (From sessions I attended)

Outreach / Education Committee.

- ISAC Recommendation for NISC Communication / Outreach Specialist. No funds currently available, possible pursue intern to work on specific projects.

- **Recommendation to sort through past recommendations and agency response, put into database (with detail and results where possible). Prior planning and guidance is necessary to develop database.** Also determine use of information and “end user” (e.g., NISC, Congress, federal agency leadership).
- Important to create a history of past recommendations to document discussions and outcomes. Often timing is not right at time of recommendation, but may resurface later.
- Should also consider individual agency plans as specific implementation plans (e.g., Arctic, Climate, NOP) to look for opportunities where recommendations can be incorporated.
- Possible request agencies to fill out template and included action taken on past recommendations and current needs. Also possible to approach individual agencies to ask how ISAC can help achieve the agencies’ goals in regards to IS. White papers are essential to bring attention to upcoming issues, as agencies may not be aware of emerging threats.
- **Recommendation to all sub-committees if to review, consolidate, and rank past recommendations.**
- **Recommendation to draft public awareness whitepaper.**

Organizational Collaboration Committee

- NAISN – potential partnership. Possible recommendation that NISC formally recognized NASIN as a resource. Formal recognition may generate support and reduce duplication. Application process to become Hub, center must have staff support and commitment. Primary focus is not education and outreach (rather than research). Mechanism for universities for universities and NGO to collaboratively work on IS management. Funding (501 c3) is directed to the best node to accomplish a specific task.
- NAISN newsletter is on web and summarizes NAISN’s structure and mission. If funding available, NAISN is geared to solve invasive species management issues.
- Some value in information sharing. Entities should be able to electively participate even if not receiving funding.
- Recommendation to review ISAC by-laws and make suggestions for change. (e.g., current by-laws do not address actions items, recommendations, and white papers. (Ken and Marshall will do first review and send to rest of committee).
- Make sure by-laws are made available in materials for each meeting. Also consider development of ISAC Handbook to assist orientation of new members.
- IS definition whitepaper. Is clarification needed on the definition of “harm.” How determine “net harm”, when does environmental harm outweigh economic benefit.

Meeting adjourned at 5:00 PM