

INVASIVE SPECIES ADVISORY COMMITTEE MEETING

Early Detection and Rapid Response

December 7-9, 2010

USDA Economic Research Service (ERS) Conference Center
Waugh Auditorium
1800 M Street, N.W. (South Tower), Washington, DC 20036

MINUTES

DAY 1: Tuesday, December 7, 2010

COMMITTEE MEMBERS PRESENT

E. ANN GIBBS (Chair)	Maine Department of Agriculture
JAMIE REASER (Vice-Chair)	Pet Industry Joint Advisory Council
AMY FRANKMANN (Secretary)	Michigan Nursery and Landscape Association
PETER ALPERT	University of Massachusetts
NANCY BALCOM	University of Connecticut
EARL CHILTON, II	Texas Parks and Wildlife Department
JANET CLARK	Sweetgrass Consulting
JOSEPH M. DiTOMASO	University of California, Davis
OTTO DOERING, III	Purdue University
SUSAN ELLIS	California Department of Fish and Game
SCOTT HENDRICK	National Conference of State Legislatures
ERIC LANE	Colorado Department of Agriculture
TIMOTHY MALE	Defenders of Wildlife
ROBERT McMAHON	University of Texas at Arlington
EDWARD MILLS	Cornell University
STEPHEN PHILLIPS	Pacific States Marine Fisheries Commission
THOMAS REMINGTON	Colorado Department of Natural Resources
STEVEN JAY SANFORD	New York State Department of Environmental Conservation
KRISTINA SERBESOFF-KING	The Nature Conservancy
DAVID E. STARLING	Aqueterinary Services, P.C.
NATHAN STONE	University of Arkansas at Pine Bluff
JOHN TORGAN	Save the Bay
JENNIFER VOLLMER	CPS Timberland
DAMON E. WAITT	University of Texas at Austin
ROBERT H. WILTSHIRE	Center for Aquatic Nuisance Species

NISC STAFF PRESENT:

LORI WILLIAMS	Executive Director
CHRISTOPHER (CHRIS) DIONIGI	Assistant Director for National Policy and Programs
DELPHA ARNOLD	Office Manager
PHIL ANDREOZZI	Senior Policy Analyst and Regional Coordinator

NISC POLICY LIAISONS PRESENT:

MARGARET (PEG) BRADY	U.S. Department of Commerce (NOAA)
A. GORDON BROWN	U.S. Department of the Interior (DOI)
HILDA DIAZ-SOLTERO	U.S. Department of Agriculture (USDA)
DAVID MILLER	U.S. Department of State (State)
MIKE SLIMAK	U.S. Environmental Protection Agency (EPA)
WAYNE ESAIAS	National Aeronautics and Space Administration (NASA)

Ann Gibbs, ISAC Chair, called the meeting to order at 8:07 a.m.

Ms. Gibbs welcomed everyone and gave background of the meeting theme and agenda. Janet Clark, Jamie Reaser and the other members of the Steering Committee were thanked for their efforts in crafting the agenda.

Mary Bohman and Utpal Vasavada, Economic Research Service of USDA welcomed the members and gave overview of the Program on the Economics of Invasive Species Management (PREISM) Program.

PREISM is focused on the economics of preventing and managing invasive species to develop capacity to inform USDA decision making and resource allocation

O. Doering thanked Ms. Bohman for holding the Spring workshop.

APPROVAL OF MINUTES FROM JUNE 2010 MEETING

Damon Waitt made the motion to approve the Minutes as written. Seconded by Bob. McMahon. Minutes were approved by general consent.

NISC STAFF REPORTS

Lori Williams, NISC Executive Director

Ms. Williams thanked Hilda Diaz-Soltero, Kelsey Brantley, Chris Dionigi for arranging this meeting. Further thanked were the subcommittee Chairs and participants for their work since June.

Staff updates:

- Phil Androozzi, NISC Regional Coordinator is back from Guam
- Lori Faeth will start at the Policy Office for NISC and Oceans
- Stas Burgiel has joined the NISC Staff as the Assistant Director for International Policy
- Kelsey Brantley has been working hard on the ISAC website.
- Delpha Arnold has streamlined files and working on fine tuning the NISC Reports.

Ms. Williams expressed her thanks to Ms. Rhea Suh, DOI Assistant Secretary for Policy, Management and Budget, as well as Mr. Michael Bean, Director of the Fish & Wildlife Service, for speaking to ISAC.

Thanked the office of the Secretary of Interior for use of their interns.

Plans for National Invasive Species Awareness Week (NISAW), to be held February 28 – March 1, 2011 are progressing well. The venue will be the Dupont Hotel, 1500 New Hampshire Avenue, N.W., Washington, DC 20036.

Chris Dionigi, Assistant Director for Domestic Policy

- Dr. Dionigi thanked Kelsey Brantley for her hard work on this meeting, and also thanked USDA/ERS for providing the space for this meeting.
- Traveled to Montana for review of actions of Park Service Teams on exotic plants. Efforts have been successful and they are now moving on to secondary exotic species. He will help to guide the evolutions of these teams. ISAC is critical to the direction and continuation of these teams.
- Working on a draft MOU between the National Fish and Wildlife Foundation and DOI to establish a fund for EDRR activities. This is an agenda item for the EDRR Subcommittee.
- Traveled to Taiwan for a conference on invasive species. There is strong verbal commitment to host ISAC in New Zealand.
- ISAC could have a meeting in Atlanta and go to CDC for tour with a strong focus on zoonotic diseases.

Phil Androozzi, NISC Regional Coordinator

- Mr. Androozzi gave background on past three years of work that he's been doing in Guam and Micronesia with Regional Invasive Species Council (RISC). There is a military build-up in Guam that will bring in \$20 million in infrastructure. There is concern about impending introductions of invasive species, and a biosecurity plan is being devised. The plan is DOD funded to do comprehensive risk analysis of invasive species for all taxa in the Micronesia region. Four different agencies in APHIS working together on this project with Smithsonian and USGS. Federal and external international partners are working together in the review of this plan, so that it can be implemented effectively.

Questions for Mr. Andreozzi:

N. Balcom – How is it working for timing and funding? *Ideally the biosecurity plan would have lined up better with the funding. Optimistic that DOD will continue to fund the plan and implementation.*

P. Alpert – Were the risk assessments based on existing plans? *They are based on established plans.*

S. Sanford – Does the scope of the plan go from prevention to response? Yes. For the response part, are there teams planned to do this? *The scientists will make recommendations for rapid response but will not say who should do what. The implementation portion of the plan will do this.*

B. McMahon – With all this new construction there is huge habitat disruption—is this being looked at? *Yes, this is part of plan by Fish & Wildlife.*

RESPONSE TO ISAC RECOMMENDATIONS *(from the June 2010 meeting)*

- Rec. #1: Status – working with S. Hendrick on the Listserv. This is being worked on and state lists of
 - Councils are being put together.
- Rec. #2: Status – this has been done and is featured in the USDA report.
- Rec. #3: Status – this item has been partially completed. G. Brown will report.
- Rec. #4: Status – significant progress is being made, although the reports for the previous year are not
 - yet available. FY2009 will be completed soon and FY 2010 will be completed by Feb 2011.
- Rec. #5: Status – NISC cannot officially adopt a White Paper without extensive edits. Instead will focus on
 - the recommendations in the White Papers and getting agencies to respond to each—should be more effective.

Questions/Comments on Recommendation 5:

P. Alpert – Any time to do a cross-cutting budget? *Good question for the DOI Management and Budget Division. Will the figures be made available? Yes, will be on the website.*

H. Diaz-Soltero – Budget is on continuing resolution making it difficult to put a cross-cut budget together. Useful to continue collating the budgets of the agencies in specific areas.

NISC MEMBER DEPARTMENT REPORTS

Gordon Brown, U.S. Department of the Interior

(NOTE: A written report will be posted on the website when completed)

Bureaus in Interior that are working on invasive species

- Indian Affairs – sustainable communities at risk
- Land Mgt. – working on database system this year to combine gps information with monitoring and inventory work. Hoping connection with other bureaus and that it'll flow to ISAC. Managing large landscapes
- Ocean Energy Mgt, Regulation and Enforcement
- Reclamation – from Tamarisk to Zequanox
- Fish & Wildlife – leveraging rapid screening to speed listing
- Park Service – balancing recreation, cultural resources and invasive species – interested in looking to the future and recommendations from ISAC
- Insular Affairs – beyond Brown Tree Snakes to Biosecurity
- Geological Survey – basic and applied science for invasive species and decision support
- Lacey Act updating continues.
- NPDES pesticides general permit
- Major consequences for various departments in relation to invasive species.

- Biotechnology – ongoing interactions on this and the potential environmental impacts.
- Tamarisk – balancing T&E with biocontrol. The biocontrol program has ended but the control continues to move. Working on restoration.
- CEC – trilateral information networking (NAISN)
- Database summit
- Decision support tools – working to support agencies/groups
- EDRR and USGS
- National Framework for EDRR at <http://edrr.nbio.gov>
- Global Invasive Species Information
- Asian Carps – increase in funding
- Large constrictors – still as much debate over level of harm as data quality – measurement process is needed.
- Quagga/zebra – delivered the QZAP to the Hill with budget included.
- Tamarisk – working with partners and are continuing to sustain their efforts.
- Future issues
- GE organisms and biofuels
- Novel ecosystems – unnatural rates of change
- Is function the key?
- Native species in a world of changing perceptions
- Why so few extinctions? This from the critics. Not really a good answer.
- EO 13112 and GE and CE: the precautionary approach

Question/Comments for Mr. Brown:

D. Starling – (Regarding GMOs) Once reviewed then what role do State rights play? (Regarding Asian Carp) We've been moving this for 20 years through bait fish – has this been considered? *Has been active participation with the bait producers.*

J. Vollmer – Are the lawyers are preventing Park Service from acting? *No.*

E. Lane – Last week western states met to discuss weed programs and decided that Lake Mead is the source of the problems. Hard to believe that the problem could come from one source.

B. McMahon – Has anyone looked at the ability of Asia Carp to live in the Great Lakes? *Yes, this is being looked at.*

Margaret “Peg” Brady, U.S. Department of Commerce (NOAA)

(NOTE: Presentation will be posted on NISC Website)

Ms. Brady began by making introductions of key NOAA staff.

- Next Generation Strategic Plan
 - Future vision – resilient ecosystems, communities, and economies
 - Long-term goals
 - Great Lakes Restoration Initiative
 - Awarded \$9.2 million to nine projects throughout this region
 - First time a special award condition for invasive species
 - Also looking at climate change and making the projects “climate smart”
 - Sea Grant – Aquatic Nuisance Species Awards
 - Held a competitive grant process with \$2 million for five regional grants awarded *(without budget the funding for this project is unknown.)*
 - AIS technical assistance for habitat restoration projects
 - Providing technical assistance and documents designed for restoration.
 - Availability of AIS prevention document
 - This document is now posted in the Federal Register as final.
www.anstaskforce.gov
 - NAISN Workshop (North American Invasive Species Network)
 - Collaborative trilateral initiative to establish a coordinated network that advances

science-based understanding of invasive species in North America. www.invasive.org/NAISN. ISAC should receive a briefing from this group within a year.

- NOAA response to lionfish invasion
 - Being recognized as an issue.
- Aquatic Nuisance Species Task Force Meeting
 - Exploring a lead person on the quagga-zebra mussel position.
 - Approved the Wyoming and Nebraska ANS State Mgt. Plans
 - Established a committee to update the Aquatic Invasive Species Recreation Guidelines.
 - Co-chairs will request increased US federal agency participation within the ANSTF regional.
 - Distribute genetic biocontrol regulations paper
 - Review Great Lakes panel
- ANSTF Recommendations
- Upcoming events – Changing Oceans conference and NISAW with NOAA hosting a reception.

David Miller, U.S. Department of State

- Convention on Biological Diversity – Govt. of Japan reported on eradication efforts on their islands. Attempting to develop the Black Bass as a sport/culinary fish—provided fish sandwiches to the participants.
- Ad hoc technical experts group will be meeting within the year
- Lion fish – interest stems from the danger to the health of coral reefs and local fisheries, with threatens tourism in the region. Attended various meetings on this and have made a budgetary request of Congress for follow-up activities based on these meetings.

Questions/Comments for Mr. Miller:

P. Alpert asked a question about cooperation with USAID. *Answered by J. Reaser – USAID has development projects.*

Bob Nowarski– Access and benefits sharing? *At the conference over 50 decisions were taken over the 2 weeks that involved this in an agreement. No carve out for biocontrol.*

J. Clark – With international work, what is the US reputation for controlling the spread of invasive species? *Expect pressure for help with species native to US as changes occur due to global warming.*

Mike Slimak, U.S. Environmental Protection Agency

- Regulatory Issues
 - Office of Water and the Clean Water Act, Vessel General Permits – regulating discharge from recreational vessels as well as shipping vessels.
 - NPDES General Pesticides – what is considered “a” water? Is a wetland considered “a” water? EPA’s view is that if you follow the label you are protecting the environment and don’t need a permit. EPA was sued for this and chose not to appeal it. Now bringing in series of folks to deal with NPDES. With pesticides, regulation is now at the State level.
 - Asian Carp – stimulus money went into looking at restoration in the Great Lakes.
- Research and assessment
 - Energy Security Act – renewable fuels, including biofuels, are being allowed in vehicles. ISA 2007 developing report-looking at using invasive plants as a source for biofuels. Expecting release of the draft by the end of the year, then looking for comments.
 - Environmental DNA work – work to better interpret an EDNA finding.
 - Models looking at IMO Standards and discharge limits
 - Prediction program for invasive species.
 - Climate Change and invasive species.

Questions/Comments for Mr. Slimak:

J. Clark – NPDES draft was supposed to be released. Behind schedule.

D. Starling – Why is EPA involved in Asian Carp? EPA has a Great Lakes office and a treaty with Canada that necessitates EPA's involvement.

P. Alpert asked for clarification on EDNA.

E. Chilton – Question on biocontrol agents as a discharge. Could be the reason for EPA involvement with Asian Carp.

Wayne Esaias, National Aeronautics and Space Administration (NASA)

Dr. Esaias introduced himself and talked about the census, phenology, and pollinator work that is taking place.

Questions/comments for Dr. Esaias:

P. Alpert – Asked question about his work with signatures and species.

E. Chilton – Working with USDA on signatures of species.

Hilda Diaz-Soltero, U.S. Department of Agriculture

(NOTE: Full report provided to ISAC in advance, and is available on NISC website)

Questions/Comments for Ms. Diaz-Soltero:

B. Wiltshire – Thanked H. Diaz-Soltero for her comprehensive reports. Cooperative Conservation Partnership – is there still funding for this? Yes, the program is there but with a different name. Report pgs. 7-8, where USDA asks ISAC for assistance, has this happened? No, this has not been addressed. Would like to highlight this for discussion.

P. Alpert – There is no place to go for applied research on non-ag. invasive species. Not correct, USDA can fund in these areas just not always competitive grants.

K. Serbesoff-King – Still working on the NAPRA Rule but not complete.

B. McMahan – Is it a rule that NSF can't fund basic invasive species research?

OPENING KEYNOTE ADDRESS

Ms. Rhea Suh, Assistant Secretary for Policy, Management and Budget, U.S. Department of the Interior

SUMMARY OF REMARKS: On behalf of Secretary Salazar, R. Suh welcomed ISAC members and thanked everyone for their commitment to the invasive species issue. Background was given on the Secretary's interest and understanding of invasive species issues on the national and international fronts. Climate Change is one of the Secretary's top-line priorities. Working with departments to focus on land management policies as they relate to climate change and invasive species.

Questions/Comments for Ms. Suh:

O. Doering – Point of information - PREISM has been very successful. In respect to climate change ISAC is working on a white paper.

T. Male – Creating a fund is critical.

S. Hendrick – (Regarding the white paper) Are there any timelines in the Dept. that would make the white paper more useful? As the timeline is tied to budgets, it'd be best to look at the 2013 budget year.

P. Alpert – Anything envisioned for wilderness areas? Nothing planned, but willing to look at ideas.

E. Mills – (Regarding teaching community preparedness) Would like to see more opportunities at the grass roots level for people to get engaged and knowing the process on-the-ground. Absolutely, need to be doing a better job at this. Need to speak more clearly as one voice, which is difficult given the number of different levels involved in the invasive species issue.

B. Wiltshire – (Regarding the wilderness) As these are areas that aren't yet infested, it is important to focus on prevention. The increased focus on EDRR is concerning as once detected the ecosystem is affected. Prevention is the key. The reality is that there isn't a "one size fits all"

approach that works with invasive species and need to recognize and utilize the various tools.

D. Starling – Finding that there is interstate movement of aquatic stock without running into the Lacey Act. It appears that federal agencies are delegating their responsibilities to other agencies causing confusion and regulatory burden—beware of MOUs and be clear with delegations.

E. Lane – With challenge of the Depts. work across the bureaus and agencies, there are a number of efforts that are great pilot opportunities that could illustrate how to do this. Western states have strategic plans for invasive species, it helps to have the Secretary's influence on collaboration. By framing it as habitat restoration, there's an opportunity to encourage more of this down to the staff level and with other Departments. Working to focus more on landscapes in a broader view to make this happen.

J. Clark – Concerned with Bureau of Indian Affairs agency dropping out of the invasive species conversation, which seems to be budget related. The fact is that funding is decreasing in all areas. We need to look at how we use the resources we have in a more efficient manner and working with more partners to keep our momentum and progress continuing.

B. Wiltshire – Recognizing fiscal realities, the ANS Task Force gets funds down to the States through appropriations. Would urge the Dept. to request full funding through this appropriation.

E. Chilton – Agree that we need resources for outreach and education, however, don't underestimate the importance of early detection.

T. Male – There are allies out there that can assist with funding and ISAC is interested in doing this for the Department.

PRESENTATION/DISCUSSION: ISAC CLIMATE CHANGE WHITE PAPER

Otto Doering, Purdue University

(NOTE: The proposed white paper was provided to ISAC members in advance, and is available on the NISC Website)

Dr. Doering gave a brief background and presented the final draft of the ISAC Climate Change Whitepaper.

Questions/Comments to Dr. Doering and the group:

- J. DiTomaso – doesn't like reference to glyphosate herbicide losing efficacy.
- H. Diaz-Soltero – agreed that this is an issue.
- J. Reaser – topic is missing—not all non-native species are going to get worse, in fact some may get better. Useful from scientific and credibility standpoint. Pg. 3, bullet #2-NISC cannot take legislative action. Bullets #3 and #4 need to be removed from this paper. Could add a bulletin point at the end.
- E. Lane – agree with comments on #3 and #4.
- B. Wiltshire – agree with Jamie's comments. Who do we see as the audience for our White Papers? If it's NISC then should take these items out.
- G. Brown – It's important to remember that even though the audience isn't NISC, the Secretaries do see these.
- H. Diaz-Soltero – agencies can propose a Bill, so this information should remain.
- B. Wiltshire – suggest bullet #2 it be removed from the Climate Paper and instead be made into a recommendation.
- J. Torgan – are aquatics/marine invasions going to be included in this paper? Would volunteer a paragraph to make sure it's included.
- P. Alpert – thought that point #2 was the most important. Without it another EO could take it away.
- J. Clark – in our archives hasn't ISAC already recommended this? If yes, should we do it again? Marine invasions were addressed by ISAC in a recommendation previously.
- H. Diaz-Soltero – yes it's important to make the recommendations again.
- S. Hendrick – add an introduction, who ISAC is and what we represent, and move the recommendations up to the front. This is the standard format of White Papers. Then we should change the format.
- A. Gibbs – good point to move the recommendations up to the front.
- P. Brady – in the January conference, the recommendations on the NISAW Marine White Paper are going to be considered.

- A. Gibbs – we decided to put these forward as two separate papers.
- K. Serbesoff-King – the recommendations are similar between these two papers.
- H. Diaz-Soltero – don't confuse the agencies and the information in the papers. Keep them as two separate papers.
- N. Balcom – the CEO subcommittee should review the format.
- B. Wiltshire – reference climate change on the aquatic side includes fresh water as well.
- S. Hendrick – through the committee.
- D. Waitt – stick with the same format and leave it up to the CEO subcommittee to figure it out.
- D. Starling – need to include fresh water issues in the marine reference.
- E. Lane – with fisheries, it would be helpful to give examples.
- B. McMahon – aquatic and marine are two different things. Don't use fisheries. This can't wait until the next meeting.

Actions agreed upon with regard to the Climate Change Whitepaper:

- Do away with bullet #2
- Bullets #3 and #4 tie to climate changes
- J. Ditnmaso has text about herbicides
- J. Reaser has text changes
- Reference the Marine white paper, reformat, and finalize during the subcommittee meetings.

The group will revisit formal adoption of the whitepaper during the final day of the meeting, Thursday, December 9, 2010.

PANEL DISCUSSION: INCENTIVES FOR HARVESTING/MARKETING OF INVASIVE SPECIES

PANEL MEMBERS: Craig Martin, DOI/FWS; Sam Finney, DOI/FWS; John Lydon, Ph.D., USDA/ARS; Lewis Ziska, Ph.D., USDA/ARS; James Morris, Ph.D., DOC/NOAA; Susan Pasko, Ph.D., DOC/NOAA

SUMMARY OF REMARKS: The issue of the utilization of invasive species (including harvested invasive species) and the effectiveness of utilization as a strategy to control invasive species -- as well any unintended consequences of such use -- has come up in a number of recent cases, especially regarding invasive fish. The panel of agencies who are addressing these issues in the absence of established legal or policy positions (DOI/DOC) and USDA that has policies and procedures in place regarding the utilization and disposition of many types of invasive species (in most cases plants and plant pests).

As NISC members are being asked to address this issue in the context of invasive Asian carp, lion fish, and other fish and wildlife species, there are both legal and policy issues to be addressed on this issue. Use or sale of some of these species may also be used to reduce total outlays for some control programs.

Panel members gave statistics on the issues and unintended and economic consequences.

Questions/comments for the panel:

J. Torgan – Any potential for Asian Carp in recreational areas? Bow fishing for example?

C. Dionigi – Using the technology called daughterless carp, could this be the silver bullet? This takes a lot of time and funds but is possible. If we fish these down now, it may be possible. Concern is with the exit strategy.

J. Clark – If ISAC makes recommendations on this we need to bring in the social science, human behavior, incentives expertise on this.

J. DiTomaso – Why don't we use this as a source of energy? There has to be a partnership—there's no concept of restoration and control. Makes sense, put a lot of time in biocontrol agents but without the restoration piece it leaves everything open for another invader.

D. Starling – Iowa has the country's largest carp processing plant, export is not feasible.

Concerned that we use the terms you or they, there are people that eat carp, let's not overlook that once the animals are taken out of the water it is no longer under natural resources. Social science is needed.

B. McMahon – Interested in efforts to convince people to eat silver fin. If there is a fishery and

people can make money, you may start seeing these species show up where they haven't been for economic gain. Would like to see social science figure out the percentage of probability of this happening. *Has to have strong regulations and behavioral science campaigns.*

E. Chilton – (Regarding Asian Carp) Are there preferences in the market place? Prices are different for the different species. Could there be a conflict between reasons for stocking. (Regarding Kudzu) Are the costs for harvesting being considered in using this for biofuels? Not looking at establishing and/or moving this, looking at existing stock and using it for biofuels while putting the land back into natural resources. As a businessman it may be more cost effective to have a kudzu farm.

P. Alpert – (Regarding Lionfish) Has anyone measured changes in attitudes towards lionfish after a derby? Very little work done on the social aspects of this and it needs to be done.

E. Mills – How much has red tape hindered progress on the fish issue? Working to get consensus within NOAA on the different aspects of the issues. Policy discussions are most likely going to encounter more red tape. Discussion on creating federal fisheries, do we create a fisheries management plan, etc? From the Fish & Wildlife service, the States have control over these issues. Looking to put out policy statements and be helpful where and when it's appropriate. What recommendation would you make to ISAC?

B. Wiltshire – We keep coming back to how do we utilize incentives to decrease invasives. Outreach campaign should let everyone know that the goal is not to create an economy but to restore ecology.

N. Stone – Don't the models show that overfishing is effective to reduce the stock?

G. Brown – What happens with law enforcement for moving fish across state lines when it is incentivized? Once you make a market how do you stop it from moving?

***Public comment - Jason from Fish & Wildlife service – if there is a policy then it can be controlled.*

D. Starling – Live fish markets are an important component and it isn't being addressed.

D. Waitt – By going back to the definition, if we give them value then they're no longer an invasive species.

J. Reaser – The definition is ecosystem specific. Reminder that this is part of the Agenda to provide more information for a possible ISAC White Paper.

Lori Williams thanked the panel for their presentations.

MEMBERS' FORUM

Nancy Balcom, Connecticut Sea Grant: Serving as marine co-chair now, planning to go to a meeting in Quebec this spring. Received funding from Nat. Fish & Wildlife Foundation for outreach on marine invasives.

David Starling, Aqueterinary Services, PC: Working on biosecurity program for private hatcheries.

Bob Wiltshire, Federation of Flyfishers: New program "Clean Angling Coalition" starting with the fly fisherman utilizing terms and a new fishing ethic about cleaning gear. Work on ban felt sole waders.

John Torgan, Save The Bay: Seeing an increase in the numbers of sea squirts due to the warm weather. Becoming more of an ecological and economic issue.

Damon Waitt, University of Texas at Austin: Public outreach campaign continuing but issue with pending state legislation requiring a disclaimer on all published invasive species lists.

Tom Remington, Association of Fish and Wildlife Agencies: Writing a White Paper that clarifies who has regulatory authority regarding invasive species. Also working on getting funding for an EDRR invasive species grant.

Kristina Serbesoff-King, The Nature Conservancy: Hosting the Florida-Caribbean fire learning network this week. This will be the 3rd annual meeting of this learning network, which is focused on the interaction of fire (both prescribed and wild) and invasive plants. There are seven Caribbean countries included as well as central and south Florida partners.

Scott Hendrick, National Conference of State Legislators: Continue to provide information on invasive species to legislators. Challenges now with newly elected legislators.

Susan Ellis, California Department of Fish and Game: There is a program called Wild Justice on National Geographic Channel. The California IPC members will be changing with the new Governor.

Otto Doering, Purdue University: Involved in EPA with invasives. Looking for their report on biofuels and invasives. Climate change, CO₂, and nitrogen and the impact they have (if any) on invasives.

Earl Chilton, II, Texas Parks and Wildlife Department: Built 2 giant salvinia weevil facilities (have trouble getting them to overwinter and come out in time to treat the plants). Have zebra mussels and are trying to prevent their spread to other lakes/basins.

Peter Alpert, University of Massachusetts: AAAS is holding their first invasive species conference.

Steve Sanford, New York Department of Environmental Conservation: – Proposing laws, one is called the list law and a law to restrict the transport of aquatic invasives on waterways.

Stephen Phillips, Pacific States Marine Fisheries Commission: In November, MTFWP reported suspicious organisms in Flathead lake that may be dreissenids. PCR results are pending.

PRESENTATION: ED IS NO GOOD WITHOUT RR: HOW EDRR FAILED FOR A NEW INVADER

Kerrie Kyde, MD Dept. of Natural Resources

SUMMARY: Wavyleaf Basketgrass, *Oplismenus hirtellus* ssp. *Unduatifolius*. First found in 1996 in a very small patch, now in 2007 huge spread. Has shade tolerance and isn't very seed prolific. Spread is vegetative and through sticky seeds being moved by anything that comes in contact.

Questions/Comments for Ms. Kyde:

J. DiTomaso – How many acres contaminated? *Well over 1,000 acres are infested.*

S. Sanford – Authority to go on private land for invasive species control. Law provides for the State to establish a nuisance that allows access to private land. *This plant is not federal regulated but hope is it's listed as a noxious weed before it moves to Pennsylvania.*

PRESENTATION: OVERVIEW OF THE EDDMapS EARLY DETECTION AND RAPID RESPONSE SYSTEM

Chuck Barger, Ph.D., University of Georgia

SUMMARY: Dr. Barger presented information on the Bugwood Image Database System. Key points:

- CDs and DVDs were created for invasive plants all over the U.S. Lots of databases, networks, and maps that feature invasive plants that needed to be compiled and EDDMapS was created as a National EDRR System for Invasive Species.
- Invasive species mapping made easy. Map it, zap it, map it again.
- Current projects in areas all over the U.S. Various projects taking place all over the U.S.
- Key components – current/historical distribution and electronic early detection tool
- EDDMaps Alerts are automatically sent out.
- Mid-Atlantic Early Detection Network project was just started.
- Worked with The Nature Conservancy to print information cards for the public to report invasive species sightings.
- There's an iPhone application for identification of invasive species through flash cards.
- Will have a workshop at the 2011 NISAW Program.
- Next step is the nationwide invasive plant on county distribution maps.
- Main focus will be on terrestrials
- Working on improving the reporting form, better ways to map negative data, Invasive Plants in the South as an iPhone app, and droid app.

- North American Invasive Species Network – www.naisn.org - formed after two workshops with goals.

Questions/Comments for Dr. Bargeron:

H. Diaz-Soltero – How do you handle quality assurance/control? Utilizing partners for this (each State is identifying a State Verifier).

E. Lane – Does the system have the capacity to store polygons over time? This was not designed to do this. This is for distribution mapping, for early detection it can be utilized but for rapid response you have to go to polygons to track these over time. Disconnect between distribution and rapid response that needs to be figured out. You can go in and annotate a record.

J. Ditomaso – Introduced the BADEN System and wondered if it could be integrated.

P. Alpert – How does this compare to the records stored by NatureServ? Not all information is being shared by all applications.

J. Vollmer – With map it, zap it, map it again. Is there historical data to show the size, whether smaller or larger, of an invasion?

LEGISLATIVE/REGULATORY UPDATE

PRESENTATION: APPROVED VS. PROHIBITED LIST OF EXOTIC SPECIES

Earl Chilton, Ph.D., Texas Parks and Wildlife Department (ISAC Member)

SUMMARY: Texas has had issues with invasive species and there are regulations in place to deal with these.

- Enacted an Exotic plant list, issues with this are difficulty adding plants and timeliness.
- Developed a new rule that lists approved exotic plants.
 - Went to industry and regulators to compile a list of aquatic exotic plants.
 - These species then went through a risk analysis and scoring process. Plants were then rejected, reviewed, or approved.
 - 496 species have been reviewed to-date.
 - Exotic Aquatic Plant Permits are allowed for specific reasons.
 - Question came up – what is an aquatic plant? Great debate on the definition, which led to debate on biofuels with microalgae.
 - Concern with risk of corporate espionage by giving information to the State.
 - Environmental risk structure includes native, exotic microalgae, genetically modified species in controlled areas, and genetically modified species in open ponds.
 - If native then you don't need a permit.
 - If you import it then you have to fill out an environmental risk affidavit guaranteeing it is safe.
 - Genetically modified in a controlled structure you need to fill out the same affidavit.
 - GM in an open pond but you are required to fill out another affidavit that shows research proving it's safe.
 - Draft regulations will be published in the Texas Register on December 24. Then January 26-27 Commission meetings.

Questions/Comments for Dr. Chilton:

D. Starling – How is Confidential Business Information being handled?

B. McMahon – Is this a White List? Yes. Will this happen for aquatic animals as well? Not at this time.

S. Sanford – Who performs the risk analysis? 30 agency staff performed these then had the Texas Invasive Plant Council review them. Definition of naturalized for vascular plants? Not only a plant that is reproducing but has been integrated into the ecosystem without causing problems.

T. Remington – Commends Texas for taking this on. How much public input and participation was there? There were a number of public hearings. For microalgae invited all those involved.

P. Alpert – Are new genotypes a concern? No, tried to limit discussion to the species level.

L. Williams – What is the dynamic of how this was passed? The legislature made this happen.

OTHER LEGISLATIVE UPDATES:

K. Serbesoff-King: Florida Department of Agriculture and Consumer Services passed rules restricting the movement of unprocessed wood (e.g. firewood). In July of 2010, legislation was passed and rulemaking following, which bans personal possession of eight large reptiles (seven large constrictor snakes and monitor lizard). These animals are still allowed for commercial breeding, but cannot be sold for personal possession in Florida.

S. Hendrick: In 2010 over 250 Bills were introduced in all States dealing with invasive species. Of these, 31 Bills in 29 states were enacted. www.ncsl.org, then under agriculture and rural development database. State budgets typically lag behind the federal budget.

Jamie Reaser, Pet Industry Joint Advisory Council: FEDERAL LEGISLATION (Amphibian decline issues) - microscopic fungus BD is one of the major reasons. Has caused the extinction of many species. Requesting that the Fish & Wildlife Service use the Lacey Act regulate that all amphibian eggs be BD free. FWS requesting more information. BD is widespread in various parts of the world—only 6 states in the U.S. where it's not found. Evidence that it may be native in some parts of the U.S. Many pathways, microscopic so testing is the only way to tell, intentional vs. unintentional movement has to be addressed, only 2 commercial labs that do these tests, can't be eradicated. PJAC is concerned and is working with partners on education and outreach. Looking at Best Management Practices for industry. Economic implications to industry could be staggering with very little benefit. www.bd-freephibs.com. **INTERNATIONAL LEGISLATION:** Project to create BMPs for minimizing biological invasion through the pet trade. All information on the website at: www.petpathwaytoolkit.com. Fully populated this Spring.

Questions for Dr. Reaser:

D. Starling – what is USDA's position on this? It is ubiquitous and there won't be any action taken—this may change though if FWS moves on this. It should be considered a pandemic species not an invasive species.

P. Alpert – We had this discussion...was no progress was made? No, no progress was made.

H. Diaz-Soltero – it is scary that the federal government doesn't have the tools to do something about this.

Ann Gibbs, Maine Department of Agriculture: Maine enacted a firewood ban. New Governor is proposing to remove regulations that prohibit trade.

REVIEW OF DAY 1 ACTION ITEMS

There were no Action Items from Day 1.

NOTE: Dr. Reaser advised the group that if there is interest in a White Paper on harvesting let an officer know. Action item is for a task team to have a draft White Paper on incentives for harvesting invasive species by the Spring Meeting.

PUBLIC COMMENT

Bob Nowierski, USDA NIFA (National Institute of Food & Agriculture): Grant opportunities are available through his agency. Microbial biocontrol conference was held in West Virginia last week. Position paper was generated.

Alex Perwich, Logos Energy Inc.: Core business is algae ponds – attending today to see if Logos Energy should start a business to eradicate aquatic invasive species. Came to learn everything there is to make a decision of starting a business in this area.

Annie Simpson, USGS: Took the lead to act on the GAO Report on pet trade pathways for pathogens and parasites.

The meeting recessed at 5:03 p.m.

INVASIVE SPECIES ADVISORY COMMITTEE MEETING
Early Detection and Rapid Response
December 7-9, 2010

USDA Economic Research Service (ERS) Conference Center
Waugh Auditorium
1800 M Street, N.W. (South Tower), Washington, DC 20036

MINUTES

DAY 2: Wednesday, December 8, 2010

COMMITTEE MEMBERS PRESENT

E. ANN GIBBS (Chair)	Maine Department of Agriculture
JAMIE REASER (Vice-Chair)	Pet Industry Joint Advisory Council
AMY FRANKMANN (Secretary)	Michigan Nursery and Landscape Association
PETER ALPERT	University of Massachusetts
NANCY BALCOM	University of Connecticut
EARL CHILTON, II	Texas Parks and Wildlife Department
JANET CLARK	Sweetgrass Consulting
JOSEPH M. DITOMASO	University of California, Davis
OTTO DOERING, III	Purdue University
SUSAN ELLIS	California Department of Fish and Game
SCOTT HENDRICK	National Conference of State Legislatures
ERIC LANE	Colorado Department of Agriculture
TIMOTHY MALE	Defenders of Wildlife
ROBERT McMAHON	University of Texas at Arlington
EDWARD MILLS	Cornell University
STEPHEN PHILLIPS	Pacific States Marine Fisheries Commission
THOMAS REMINGTON	Colorado Department of Natural Resources
STEVEN JAY SANFORD	New York State Department of Environmental Conservation
KRISTINA SERBESOFF-KING	The Nature Conservancy
DAVID E. STARLING	Aqueterinary Services, P.C.
NATHAN STONE	University of Arkansas at Pine Bluff
DOUGLAS W. TALLAMY	University of Delaware
JOHN TORGAN	Save the Bay
JENNIFER VOLLMER	CPS Timberland
DAMON E. WAITT	University of Texas at Austin
ROBERT H. WILTSHIRE	Center for Aquatic Nuisance Species

NISC STAFF PRESENT:

LORI WILLIAMS	Executive Director
CHRISTOPHER (CHRIS) DIONIGI	Assistant Director for National Policy and Programs
DELPHA ARNOLD	Office Manager
PHIL ANDREOZZI	Senior Policy Analyst and Regional Coordinator

NISC POLICY LIAISONS PRESENT:

MARGARET (PEG) BRADY	U.S. Department of Commerce (NOAA)
A. GORDON BROWN	U.S. Department of the Interior (DOI)
HILDA DIAZ-SOLTERO	U.S. Department of Agriculture (USDA)

Ann Gibbs called the meeting to order at 8:07 a.m.

Changes to the Climate Change White Paper were distributed for review.

Joe DiTomaso and Otto Doerring explained that the changes reflected the discussion from the previous day. Further discussion followed, producing additional changes.

SUBCOMMITTEE & TASK TEAM MEETINGS (Group 1)

Subcommittee on Research and Information Management

Peter Alpert, Chair

- **GLOBAL DATABASE ON RISK ASSESSMENT**

Proposed recommendation from the Research Subcommittee

Background: For plants, recent research on advance warning has included a focus on weed risk assessments, particularly tests of the Australian Weed Risk Assessment (AWRA). Most of these tests have supported its utility. For example, Gordon *et al.* (2008, Diversity and Distribution 14:234-242) found AWRA to be consistently accurate in various areas outside Australia, and Chong *et al.* (in press, Biological Invasions) found that ability of introduced plants to naturalize in Singapore was predicted well by mean AWRA scores for the same species in other four tropical regions. The latter paper concluded that a global database on assessment scores should be set up, and the Institute of Pacific Islands Forestry's program on Pacific Islands Ecosystems at Risk (PEIR) already informally posts risk assessments at <http://www.hear.org/pier/index.html>.

Recommendation: Support should be formalized for a global database of risk assessments for intentional introductions of species into countries. The database should include essential information such as the risk assessment model used, the year of the assessment, the individual questions and answers used for the assessment, and the name and contact information for the agency or organization conducting the assessment.

- **INVASIVE GENOTYPES**

Proposed recommendation from the Research Subcommittee

Background: Given what we have learned since the promulgation of E.O. 13112, a refined definition of the biological unit of invasiveness is needed. It is now clearly known that all the genotypes of a species are not equal in invasive potential. For example, certain introduced genotypes of large grasses such as *Phragmites australis* (common reed) and *Phalaris arundinacea* (reed canary grass) have spread much more aggressively than others, and certain strains of microbes can be much more virulent than others. Therefore, the presence of one genotype of a species does not preclude potential impacts from the introduction of additional genotypes. Some current thought and practice suggest that, if a species has already been introduced, we do not need to worry about further introductions of the species. Research now shows the opposite to be the case.

Recommendation: Introductions of new genotypes of existing species need to be assessed for risk of invasiveness.

- **RISK ASSESSMENT OF PRECEDENTED HORTICULTURAL SPECIES**

Proposed recommendation from the Research Subcommittee

Risk assessments should be conducted on horticultural species that have already been introduced but not yet escaped cultivation.

- **RISK ASSESSMENT OF INTRODUCTIONS OF SPECIES FROM ONE STATE TO ANOTHER**

Planned proposal from the Research Subcommittee for a future presentation

Intentional introduction of a species within the U.S. from a state where it is native into a state where it is not have led to major invasions that risk assessments might have forestalled. For instance, a contractor to the U.S. Army Corps of Engineers introduced *Spartina alterniflora* from Maryland, where it is native, into California, where it is not, and this has led to a serious invasion of intertidal habitat in San Francisco Bay. We will submit a template for a presentation on problems and solutions relating to

introductions of species between states within the U.S. Possible presenters include Shirley Wager-Page or Eric Rudyj from APHIS/PPQ.

Additional notes for the minutes from the meeting of the Research Subcommittee, December 8, 2010

Some recent research in North America has proposed alterations or alternatives to AWRA. McClay *et al.* (2010, *Biological Invasions* 12:4085-4098) reported that a modified AWRA incorrectly rejected 44% of non-weedy species in Canada and suggested that performance could be improved by better incorporating tolerance of cold. They also proposed multiplying rather than adding scores respectively related to likely invasiveness once introduced and to likely damage consequent to invasion. This alteration was further considered by Daehler and Virtue (2010, *Plant Protection Quarterly* 25:[pages not known]) and was built into an alternative, "U.S. weed-ranking model" proposed by Parker *et al.* (2007, *Weed Science* 55:386-397). The U.S. model also differs from AWRA in considering likelihood of being introduced. Features of the two models have been combined into one being developed by the Plant Epidemiology and Risk Analysis Laboratory (PERAL) of APHIS (Doria Gordon, The Nature Conservancy, pers. comm.). Among research from elsewhere, work in New Zealand suggests that AWRA may also incorrectly reject a high proportion of aquatic species (Doria Gordon, pers. comm.)

Beside which model of risk assessment to use, relevant regulatory considerations in the U.S. include which species to assess. The pending rule on a list of species that are Not Allowed Pending Pest Risk Assessment (NAPPRA) would assess only a specified set of species likely to be intentionally introduced; an alternative would be to assess all "unprecedented" (i.e., not yet introduced) species (Doria Gordon, pers. comm.). This would require knowing which species are already introduced, a task hampered by failure to require identification to species of all imports (Doria Gordon, pers. comm.).

A related issue is whether domestic introductions of native or introduced species should be assessed. USDA currently lacks authority to regulate introduction of a species within the U.S. from a state where it is native into a state where it is not, even though such introductions have led to major invasions that risk assessments might have forestalled. Introduced species that are already widespread in some states are sometimes considered beyond control and so not worth assessing for risk to states where they do not yet occur. This could preclude risk assessment for domestic introductions of invasive species to Alaska, which is relatively free from but probably vulnerable to spread of invasives from the contiguous U.S.

Subcommittee on Early Detection and Rapid Response

Steven Phillips, Chair and Chris Dionigi, NISC

- Tab 5 of the meeting documents a draft was developed. Dr. John Darling spoke at the subcommittee meeting about his paper on EDRR and will help with the PCR White Paper. Standardization of PCR labs and lab certification. Requesting that ISAC potentially hold a webinar in Spring 2011 to review draft of the PCR White Paper.
- Rapid Response funding initiative – looking at a MOU at the foundation to set up a fund for rapid response. Plan is to have a series of subcommittee meetings to develop recommendation for the Spring ISAC Meeting.

Subcommittee on Organizational Collaboration

Susan Ellis, Chair

- State Agency Database listserv – who it includes and how it'll be used was discussed. Purpose statement was developed for this.
- NISAW event was detailed.
- Invasive Species Compendium – looks at invasive species on an international level. Will address climate change among other things.

SUBCOMMITTEE & TASK TEAM MEETINGS (Group 2)

Subcommittee on Prevention

Celia Smith, Chair

NOTE: Dr. Smith was not present. In her absence, Jamie Reaser chaired the sub-committee meeting and Kristina Serbesoff-King took notes.

- New NISC staff, Stas Burgiel, will be focusing on prevention (not present at subcommittee meeting)
- Priorities from Spring 2010 meeting and new ideas from Fall 2010 meeting:
 - Internet trade (both regulatory tools and bmp) SEE BELOW FOR MORE DETAIL– trade over internet as pathway of already restricted invasive species.
 - GISP document in 2007 – global trade and internet. Prevention subcommittee could review, decide if it needs update, if it could adopt as is or if there are some recommendations to move forward through an ISAC product.
 - Possible panel/workshop on this subject.
 - Past efforts
 - webcrawler with USDA. May no longer be around, but there is a model being used in Western Australia.
 - Western regional panel of ANSTF may have looked at this in the past
 - E.g. rusty crayfish and asian clams being sold by biological supplies
 - Hull fouling – limited discussion at Fall 2010 meeting. Delayed at present. ISAC subc who are interested in this to help in the future – Bob McMahon, Ed Mills, Adrianna Muir, Peg Brady, Phil Andreozzi

New Priorities:

- Review of Micronesia Biosecurity plan – revisit this at Spring 2011 meeting and possibly have a presentation.
- Revisit joint prevention group between ISAC and ANSTF – 3 separate groups looking at 1) risk assessment, 2) risk analysis and 3) screening tools..
 - Request that NISC staff get a report/update on progress from each of these groups and bring to Spring 2011 meeting.
 - Request that NISC staff revisit the logic/structure and bring for discussion to Spring 2011 meeting. If necessary, suggest revision to structure on how this is set up.
- Subcommittee review of GAO report on animal disease and how federal agencies take up recommendations
- How is US being a good actor on screening our own exports - ensuring clean trade prior to export. (e.g. invasive pests.)
 - Suggest a panel discussion at Spring 2011 meeting. Include a US trade representative, APHIS, etc.
- Request to full ISAC/NISC – we would like a report from USFWS on the Lacey Act revisions at the Spring 2011 meeting.
Note: *Prevention Subcommittee would be willing to review USFWS recommendations/revisions. (Possible speaker – Jason Goldberg will help find appropriate USFWS staff to present)*
- INTERNET TRADE DISCUSSION
Request to full ISAC/NISC – request to have a panel discussion of experts on the topic of internet trade at the Spring 2011 ISAC meeting.
Subcommittee members will come up with list of ideas for experts to invite by end of January.
 - **TASK:** *Subcommittee members will send ideas to Celia/Jamie by end of January 2011.*
 - Someone from western Australia (Phil/Jamie). Note – Tim Male, once an expert is identified will see if embassy can help fund travel for expert to attend full Spring ISAC
 - Someone from Google – (Tim/Chuck)

- Sostal service/FedEx (Jamie)
- Internet business association? (David)
- AFWA – because some agencies are restricting the sale of live animals through retail sale. Included because this could push people to the internet trade (*ask Tom Remington to identify best person*)
- **TASK:** *Jamie will send out GISP paper on internet, Caulerpa paper, and Ornamental fish paper on internet trade (by end of Jan 2011?)*
- **TASK:** *Phil will ask Hilda why the USDA webcrawler (by Spring 2011). Note: NC State worked with USDA on this webcrawler, contact is*
- **TASK:** *Phil will do a cursory review of what is being used in other countries (by Spring 2011)*
- **TASK:** *Subcommittee will review papers and be prepared to discuss at Spring 2011 meeting*
- **GENERAL DISCUSSION**
Internet Trade –End goal = specific recommendation on how to reduce movement of restricted species in the internet trade. Get this completed by Fall 2011 meeting.
NOTE: *Includes internet companies (e.g., Craigslist, Ebay, etc.) What about trade online that is not necessarily business, but trade between garden clubs,this is high risk pathway. Could be a vector for disease because these populations are not regulated, not inspected.*
 - **DECISION:** Draft a relatively short document outlining this issue (draft at Spring 2011 meeting)
 - Look at other types of restricted trade and how it is being tracked in internet
 - Outreach/education – possible use of webcrawler to look for this type of trade. Who is the audience for this outreach? idea = those who are regulated. Idea for internet topic: Webcrawler that instantly emails a warning to someone who is selling a restricted species. Ask USDA to give a review on how their attempt worked and why it was stopped.
 - Get a write up/review of Australian effort

Subcommittee on Communication, Education and Outreach

Nancy Balcom, Chair

- Communication Plan is being drafted to facilitate improved communication with agencies.
- Promotion more widely of White Papers through a press announcement through NISC that would have a brief trailer of the White Paper being announced. Issued on ISAC letterhead that would include who we are and why we wrote this.
- Distribution of our communication will be through a contact list developed by ISAC members and NISC staff.
- With new White Papers, we're requesting that key information be included in each.
- NISC Website: There are still some problems with NISC staff getting changes made, but it has improved. Public appreciation was given to NISC staff member Kelsey Brantley for her efforts on the website.
- Internal action item: requesting authority from ISAC to issue the press announcements.

Subcommittee on Control and Management

Joe DiTomaso, Chair

- Action Item: minimizing spread of invasives through transportation corridors and waterways.
- Recommendation: expanding biocontrol efforts through the agencies (see White Paper – developing a centralized, standardized monitor)

MEMBERS' FORUM (continued)

Nathan Stone, University of Arkansas at Pine Bluff: Dr. Stone had nothing to report.

Janet Clark, Sweetgrass Consulting: In 2007, the Environmental Law Institute report on strategies for effective state EDRR plans – www.eli.org

Joe DiTomaso, University of California, Davis: Dr. DiTomaso had nothing to report.

Bob McMahon, University of Texas at Arlington: Paper in press on aquatic invasions of quaga mussel samples to determine length of time they've been in Lake Mead. It showed that they've been there for 4 years. Found in shallow waters. Completing a study on population dynamics. Waiting for QZAP funds to arrive for a zebra mussel monitoring project in the northern lakes. Completing a chapter on inter-specific competition between the zebra and quaga mussels.

Ed Mills, Cornell University: Emerald Ash Borer is marching through New York now. Discussions taking place on how to get to the private forest owners, Cornell developed a Community Preparedness Plan Workbook at www.nyis.info/insects/eab_educationalresources.aspx. This is an excellent model for invasives.

Doug Tallamy, University of Delaware: Dr. Tallamy had nothing to report.

Eric Lane, Colorado Department of Agriculture: Hired a State Weed Coordinator. Topics that came up from a regional meeting that took place recently: biofuels – many States are running into invasives being planted for biofuels. Concern is that invasives that are in short supply may be incentivized to grow more. Coordination across the landscape – detailed mgt. plans for species but implementation is a challenge when it crosses jurisdictions. Discussion took place on how to get everyone working together for the common vision. Presentations were given at this program on Edmaps and the BAEDN system (www.baedn.org). State budgets are all struggling and concern is that resources for dealing with invasive species will be lost.

Amy Frankmann, Michigan Nursery and Landscape Association: Michigan went through changes this year due to declining budget that included combining two agencies, the Dept. of Natural Resources and Dept. of Environmental Quality. With the newly elected Governor, these combined agencies will be split again on January 1, 2011.

Jamie Reaser, Pet Industry Joint Advisory Council: At the county and State level with Fish & Wildlife, seeing in regulatory policy process a trend pushed by animal rights group attempting to ban the sale of live pet sales from retail pet stores. This is to minimize risks of spreading invasive species. Concern is that people will go to other sources to get pets, mainly the internet, where nothing is regulated and disease and parasites could start to move through this pathway at increased levels that have never seen before.

Susan Ellis commented that this began in California with the live seafood markets and developed into the retail pet stores.

Ann Gibbs, Maine Department of Agriculture: Outreach and survey project funded again through APHIS on EAB and Asian Longhorned Beetle with 11 States collaborating. It's been a successful project. Through the Continental Dialogue a project is being develop a template for State agencies to help make decisions on what to do with invasives and provide guidance. This is a work in progress.

CHANGES TO CLIMATE CHANGE PAPER

Changes were presented and discussed. Changes will be made for distribution to all ISAC members on Day 3 of this Meeting.

PRESENTATION: EDRR TO CRYPTIC INVASIONS: DETECTING AND RESPONDING TO INVASIVE GENOTYPES

Laura Meyerson, Ph.D., University of Rhode Island

SUMMARY: Dr. Meyerson is a biologist at the University of Rhode Island and a leading expert on cryptic invasions, the harmful spread of introduced genotypes with species. Her own research has shown that the puzzling expansion of the native species *Phragmites australis* in the eastern U.S. was actually due to the introduction of a European genotype able to outcompete, not only native genotypes of the same species, but also other native species, reducing biological diversity and altering ecological function in Atlantic wetlands. As a Leopold Fellow of the Ecological Society of America, she is trained in the communication of science to policy makers and the public, and her presentation will explain and document the larger issue of invasion at the level of the genotype in compelling fashion.

Federal policy on invasive species, as specified in the standing executive order on invasive species, defines invasive species as species that have been introduced and proven harmful. This definition does not consider new, introduced genotypes of existing, introduced or native species, despite the fact that some such genotypes have proven highly invasive in the U.S., as Dr. Meyerson will demonstrate. Expanding early detection and rapid response to the level of genotypes within species, especially in the cases of genotypes known to have been harmful elsewhere, is required to forestall such biological invasions. More explicit recognition of this in policy will encourage the development of methods and programs for more effective EDRR.

Questions/Comments for Dr. Meyerson:

D. Tallamy – Regarding phragmites, it's thought to be an old invasion but it sounded like it was now thought to be more recent. No one really knows.

B. McMahon – Can you tell by eye what is the introduced and what is the native species. Yes, via the stems. Does it drive out the native species? *Yes it does, but you should still check prior to treating.*

C. Dionigi – Differentiating between the native and nonnative genotypes, do you need to differentiate between the two if you want to remove the invasive species? *Think it's worth distinguishing between the two. Concern with biocontrols and controlling the demise of these two.*

D. Tallamy – he might be able to as they're more different insect response that is realized.

J. DiTomaso – In California the introduced genotype is found around salt waters, is this a trait? *Yes. Reed canary grass – more diversity with multiple introductions or selections.*

E. Chilton – Good point that if there are a limited number of genotypes it may be enforceable. We need to think creatively on how we imply these insights into managements.

T. Remington – Any interest in forcing hybridization to dilute genotypes? *There's a real difference in the native and the nonnative flower head. The native pollen isn't as strong as the nonnatives.*

O. Doerring – Are the native and Eurasian Milfoil compatible to this discussion? *No, different species.*

J. Reaser – So in running climate/ecological models, the native doesn't have a chance in surviving. Are there situations that the structure of the nonnative plant would warrant its survival? *Yes, there are ecological benefits to this plant. It's not just about being invasive.*

E. Lane – We haven't seen hybridization with phragmites in North America? *No, it hasn't been proven.*

What do you mean by management at the genotype level? *Focus on the genetic basis for management.*

When you move somewhere you have an image of what it's supposed to look like. What should a New England marsh land look like? For restoration do we know this? *Shifting baseline syndrome is this phenomenon. Should we push it back to where it was? No, with all the changes it's unrealistic to think that we can go back.*

Heike Meissner, USDA/APHIS – Distinction between species isn't as clean as we thought and maybe with genotypes this is where we need to go. With genotypes though isn't there an infinite number of traits that we could look at and at what point are genotypes no longer an effective way of distinction? *We should be looking at management strategies.*

D. Starling – Ecological romanticism – making a marsh more productive – this science is incomplete.

E. Chilton – Any information that genotypes are far enough apart that there'll be different effects with biocontrols? *The potential is there but is unknown.*

PRESENTATION: NEW YORK DEC RAPID RESPONSE FRAMEWORK

Steve Sanford, NY Dept. of Environmental Conservation (ISAC Member)

SUMMARY: New York has developed a framework that would be useful for all rapid responses. It recognizes the value of species-specific response plans but reflects our experience that the particular characteristics of invasions play the largest role in determining appropriate responses. Framework overview could be presented via PowerPoint and e-version of document could be available for all ISAC members. This approach is designed to be useful to any manager (agency, NGO, industry, etc) for any species, at any location in responding to early detections. It serves as a checklist for any manager by identifying all of the many things that should be considered when verifying early detections and planning responses. Our experience since 2008 has supported the value of this approach.

Questions/Comments for Mr. Sanford:

P. Alpert – As a State Program what did you need to provide to keep funding for this? *Good lobby network led by the Nature Conservancy and in the legislature that provides fundamental support.*

S. Hendrick – Any provisions for invasions that cross State lines? *Yes, this is addressed in the Framework. Have you shared the Framework?* *Not yet.*

B. McMahon – The framework looks great but without funding for rapid response what's the plan? *Resources are being reallocated to make this happen.*

S. Phillips – On the regulatory and permitting did you look into the Endangered Species Act? We ran into trouble when we got to this. *NY had a way to close this loop with Fish & Wildlife Service.*

K. Serbesoff-King – The group is your office? *Yes.*

PRESENTATION: USDA ADVANCE WARNING ON INVASIVES

Heike Meissner, USDA/APHIS and Dan Strickman, Ph.D., USDA/ARS

SUMMARY: APHIS presented their capabilities for advance warning on invasives. This included the observation of invasives in other countries, the system to evaluate an intruding invasive species, and other information such as the role of ARS international labs.

Questions/Comments for Ms. Meissner and Dr. Strickman:

H. Diaz-Soltero – (regarding Pest Advisory Group) APHIS has a system of notification of new pests in the U.S. They mobilize quickly and pull together the best scientists from all over to analyze the situation. A report is generated within 48 hours that will validate if it is a new pest, what it's done elsewhere, impacts, and recommendation of whether APHIS should use federal funds to deal with this new pest. The administration makes the decision. If yes they mobilize the supporting agencies for tracking. This is funded with CCC funds, financed by taxes imposed on commodities.

P. Alpert – Any instances where the information generated by this program that it has resulted in stopping in advanced invasive species? *Yes, there are a number of examples where it's resulted in safeguarding action.*

D. Starling – How does this system tie into the ProMed system? *Other systems are utilized through this.*

J. DiTomaso – How does one access the website? *You have to sign up for access to this.*

A. Gibbs – How do you tie in to APHIS? *It's politically difficult.*

C. Dionigi – You listed a number of species that are a target of foreign labs for biological controls, how are they identified? *Science Directors with ARS control this program, which dictates the priorities for the labs.*

J. DiTomaso – How do you get aquatic species on this list? *Requests by stakeholders with funding.*

PUBLIC COMMENT

No public comment.

The meeting recessed at 4:50 p.m.

INVASIVE SPECIES ADVISORY COMMITTEE MEETING
Early Detection and Rapid Response
December 7-9, 2010

USDA Economic Research Service (ERS) Conference Center
Waugh Auditorium
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MINUTES

DAY 3: Thursday, December 9, 2010

COMMITTEE MEMBERS PRESENT

E. ANN GIBBS (Chair)	Maine Department of Agriculture
JAMIE REASER (Vice-Chair)	Pet Industry Joint Advisory Council
AMY FRANKMANN (Secretary)	Michigan Nursery and Landscape Association
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JOSEPH M. DiTOMASO	University of California, Davis
OTTO DOERING, III	Purdue University
SUSAN ELLIS	California Department of Fish and Game
SCOTT HENDRICK	National Conference of State Legislatures
ERIC LANE	Colorado Department of Agriculture
TIMOTHY MALE	Defenders of Wildlife
ROBERT McMAHON	University of Texas at Arlington
EDWARD MILLS	Cornell University
STEPHEN PHILLIPS	Pacific States Marine Fisheries Commission
THOMAS REMINGTON	Colorado Department of Natural Resources
STEVEN JAY SANFORD	New York State Department of Environmental Conservation
DAVID E. STARLING	Aqueterinary Services, P.C.
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JENNIFER VOLLMER	CPS Timberland
DAMON E. WAITT	University of Texas at Austin
ROBERT H. WILTSHIRE	Center for Aquatic Nuisance Species

NISC STAFF PRESENT:

LORI WILLIAMS	Executive Director
CHRISTOPHER (CHRIS) DIONIGI	Assistant Director for National Policy and Programs
STAS BURGIEL	Assistant Director for Prevention and Budgetary Coordination
DELPHA ARNOLD	Office Manager
PHIL ANDREOZZI	Senior Policy Analyst and Regional Coordinator
KELSEY BRANTLEY	Program Specialist and ISAC Coordinator

NISC POLICY LIAISONS PRESENT:

MARGARET (PEG) BRADY	U.S. Department of Commerce (NOAA)
A. GORDON BROWN	U.S. Department of the Interior (DOI)
HILDA DIAZ-SOLTERO	U.S. Department of Agriculture (USDA)
PETER EGAN	U.S. Department of Defense (DOD)

The meeting was called to order at 8:10 a.m. by A. Gibbs.

ANNOUNCEMENTS / REVIEW OF DAY 2

Ann Gibbs reviewed Agenda items for the day. Peg Brady asked to add discussion on the Marine White Paper to the Agenda.

O. Doering - Have been pushing ERS for a PREISM Meeting. Scheduled for May and can't attend. Should be some ISAC members in attendance? *Will send out the meeting logistics.*

PRESENTATION: EDRR ABILITY REALITY CHECK PLUS BONUS OPTIONS

Ship Bright, Global Relief Technology and Jennifer Vollmer, CPS Timberland (ISAC Member)

SUMMARY: Demonstration was given of a system currently being used for rapid response to disasters and how qualities of this system are evidence that an invasive species EDRR system can be made a reality. Introduction to a system under development that utilizes this current technology and additionally integrates data bases, links users to accommodate early detection alerts and collaboration, and provides a management decision support tool. Topic to encourage discussion on how this system can aid in bringing invasive species management in to the 21 century by incorporating technology to attract a new generation of managers.

Questions for Mr. Bright and Dr. Vollmer:

D. Starling – What forethought has been given to participation?

P. Brady – With information, are you pulling in weather data or other physical data? *Yes, but it depends on what the client wants. What happens if there is a major national disaster? Global Relief Technology is prepared for this. In the endangered species world, private citizens have a concern that information on their private property will be public knowledge. Does this system take this into consideration? Yes, able to block out sensitive information and/or make it password protected.*

O. Doering – (Regarding scale issue) Indiana recently formed a council. What is the cost/scale, how big of an organization do you have to be to utilize this system? *The company is young and small enough to work with most anything. The first year the cost is high due to the hardware. After that it goes down.*

C. Dionigi – When EDRR is done you have an incident command system, how does the data facilitate the work of the chief officer of this system? *Public information – spokesman has to have credibility. This system provides this. For the decision maker, all data is fused in one spot.*

CLOSING KEYNOTE ADDRESS

Michael Bean, Special Council to the Asst. Secretary Fish, Wildlife, & Parks,
U.S. Department of the Interior

SUMMARY OF REMARKS: With endangered species, invasive species came in as the second largest reason. Questions and requests for help are needed in this area:

- Setting priorities in the area of invasive species-need a better sense of what's more important to do.
- Some activities that are likely to be needed are expensive. In a time of reduced budgets, how do we pay for this? Are there mechanisms to shift the costs, are there creative ways to structure and find funds?
- How do we improve our ability to predict, screen species or areas that may be infested?
- Incentives to get cooperation with private land owners in the fight against invasive species.
- Engagement with the States: How best to achieve cooperation/coordination between these in the fight against invasive species?

Questions for Dr. Bean:

D. Tallamy – Historically, we've treated all exotics as innocent until proven guilty, any thought on this changing? *There is some potential for this but based on history it will be contentious.*

P. Alpert – Inability to regulate the accidental importation of diseases through livestock. Any thought on how to help stop this? *Unsure.*

J. Torgan – Any plans or proposals to revisiting the Lacey Act and is this a risk? *Yes, looking at legislative action and there is a risk to opening it, but the benefits could be greater.*

J. Reaser – Lacey Act Revision is needed and timely, concern is with enforcement. Encouraging DOI at focusing on an end goal with a clear strategic plan that includes resources to achieve the goal.

Suggestion of packaging is good.

D. Starling – (Regarding wildlife diseases) Fish & Wildlife Service should seriously consider their role with this. *Asked for help with getting USDA to recognize this role.*

E. Mills – Great Lakes Fishery Commission is an effective group, should we be looking at regional groups to help with the invasive species issue? *Yes, as the issues are usually regional, this is a good suggestion.*

P. Brady – Example is on the aquatic side with the panels in ANSTF.

H. Diaz-Soltero – With plants there are non-governmental regional groups that are working.

GROUP DISCUSSION

Ann Gibbs announced to the group that Janet Clark will take over the role of Vice Chair. Jamie Reaser will remain on the Steering Committee.

- Discussed an incentives white paper for aquatic and marine, who is interested in joining this task team? B. Wilshire, S. Ellis, and N. Stone are interested. The charge is to have a draft paper ready for the Spring ISAC Meeting. N. Stone and B. Wiltshire will chair this project. P. Brady offered NOAA's assistance.
- Marine Invasions and Climate Change White Paper – at Spring meeting there was discussion on the Marine Invasions Climate Change White Paper. The paper was sent out and comments were received. This is still on the table and will be on the Agenda at the Spring meeting, with work taking place electronically.
- Climate Change White Paper – final draft was reviewed.
 - O. Doerring – would be ideal if we could get this published as the biofuels paper was. Given where the administration is on climate change, this is a good time.
 - H. Diaz-Soltero – if we can't get it in a peer reviewed journal, can get it in the Forest Service newsletters.
 - J. Reaser – Opportunities for Action – the line between 1st and 2nd bullets, put it at the end of the full collection of bullets.
 - P. Alpert – take out the word plant.
 - J. DiTomaso – don't take out plant, but add animal
 - P. Brady – hull-fouling is bio-fouling
 - B. Wiltshire – aquatic is not working in the context. Take out the
 - P. Brady – should this be bundled with the marine? There may be more also.
 - H. Diaz-Soltero – aquatic is working in this context.
 - D. Tallamy – take out or framework corals.
 - C. Dionigi – **comment not captured – PLEASE ADD**
 - B. Wiltshire moved to adopt this paper contingent on changes discussed this morning. J. Vollmer seconded. Approved by general consent.
 - S. Hendrick – how is this submitted to agencies now that it's adopted? It is sent to all policy liaisons.

DISCUSSION AND FINALIZATION OF RECOMMENDATIONS AND ACTION ITEMS

Proposed Formal Recommendations to NISC:

- 1. ISAC recommends the formalization of the commitment to address invasive species by codifying the National Invasive Species Council and the Executive Order 13112 definition of invasive species in legislation. (submitted by Bob Wiltshire)**

Questions/Comments on Recommendation #1:

- L. Williams – format needs to be changed
- J. Reaser – this hasn't been discussed so should it be tabled.
- N. Stone – what are the implications to NISC?
- L. Williams – there has been legislation introduced to do this. It depends on what legislation. It would not give NISC power. It would make NISC more real or change with the Administration. Unsure if this would be supported by the current Administration.
- B. Wiltshire – is it correct that previous ISAC's have made this recommendation?
- L. Williams – unsure if this specific recommendation has been made. There is nothing before Congress at this time.
- J. Reaser – when this has come up before there wasn't support.
- P. Alpert – if this would guarantee that NISC wouldn't be cut, it would be good to move it.
- B. McMahon – would this give an open door to get rid of NISC? A good recommendation but may be better to assess the environment and bring it up at the Spring Meeting.
- L. Williams – it'd be best to find out if the Administration would support this. Would be a risk putting it in front of Congress.
- H. Diaz-Soltero – we need to do a risk analysis on this prior to moving forward with this.
- B. Wiltshire – recommend that we turn this into an Action Item and ask NISC to analyze and report back at the Spring Meeting.

It was agreed that this would be an Action Item.

- 2. ISAC recommends that NISC agencies objectively evaluate available technology for inclusive management solutions to meet the National Invasive Species Management Plan objectives such as early detection network, collaboration, information sharing, and performance evaluations. (submitted by Jennifer Vollmer).**

Questions/Comments on Recommendation #2:

- J. Clark – unsure of the meaning and are the liaisons already doing this?
- J. Vollmer – the pieces aren't being put together for one concise solution. Integrate all the pieces.
- P. Brady – unclear on the performance evaluations.
- J. Vollmer – this comes from BLM and their performance evaluations—they aren't addressing rapid response. If the data was there they could use other criteria that would allow addressing rapid response.
- J. Clark – is there overlap with the National Mgt. Plan, EDRR 5.1.1? It directs the staff to integrate and figure out a solution.
- J. Vollmer – not using existing technology in the interpretation.
- P. Alpert- the word objectively implies that it wouldn't be otherwise.
- J. Vollmer – in there to protect the integrity of the Agencies.
- E. Lane – the technology we've heard through presentations during this meeting have been good. Concern is that with endorsing a specific technology we're forcing the Agencies to adopt one over another. Assumption is that the Agencies are evaluating all technologies and making decisions as needed. Is it our role to promote?
- L. Williams – nothing technically wrong with this recommendation. It is difficult for Agencies to review available technologies, but not sure how effective this would be. Recommending

- that this be an Action Item asking for a report from the Agencies on what they're doing and what they're using.
- J. Vollmer – the clarification is that Agencies are utilizing technology to meet the needs within their Agencies. They're not adapting this to meet the National Invasive Species Management Plan.
 - S. Bright (Global Technologies) – in meeting with Agencies, their radar isn't tuned to available technologies that are out there in the private sectors.
 - B. McMahon – uncomfortable with making a recommendation that we're not clear on.
 - O. Doerring – opportunity to ask the Agencies for what they're doing and then making a recommendation.
 - G. Brown – difficulty that contracting is complex, you're trying to bring new ideas to staff that isn't able to make the decisions, or have the funding. Important to direct this to the right person/level.
 - J. Vollmer – Suggest this change to an Action Item and ask the Agencies what technology they are using to meet the National Invasive Species Management Plan.
 - J. Reaser – Action Item – Stas should initiate a catalogue of technologies that could be applied in the management of invasive species with particular attention to those that may help Agencies increase their efficiencies.

It was agreed that this would be an Action Item. NISC will request member agencies to provide information on any technologies currently being utilized within their organization to meet the requirements in the National Invasive Species Management Plan. NISC staff will then initiate a catalog of those technologies which could be applied to assist agencies in fulfilling their invasive species management responsibilities.

3. ISAC recommends including utilization of non-federal stakeholders and private enterprise support for development and implementation of technology driven tools, including support of pilot projects and testing of currently available solutions that can be modified or enhanced for invasive species management (submitted by Jennifer Vollmer).

Questions/Comments on Recommendation #3:

- B. McMahon – would like to see the outcome of our last Action Item prior to moving forward with this.
- B. Wiltshire – if we have to take action than moves that we table this.
- J. Reaser – is there a barrier that we might be better addressing. Specifics are better.
- J. Vollmer – have done surveying of technology in the Agencies and have found that it isn't adequate to meet the Management Plan.
- D. Starling – Agencies aren't able to come together on technologies. Better to table this.

It was agreed that this would be tabled until the Spring 2011 Meeting.

4. GLOBAL DATABASE ON RISK ASSESSMENT: Support should be formalized for a global database of risk assessments for intentional introductions of species into countries. The database should include essential information such as the risk assessment model used, the year of the assessment, the individual questions and answers used for the assessment, and the name and contact information for the agency or organization conducting the assessment (submitted by the Subcommittee on Research).

Background: For plants, recent research on advance warning has included a focus on weed risk assessments, particularly tests of the Australian Weed Risk Assessment (AWRA). Most of these tests have supported its utility. For example, Gordon *et al.* (2008, Diversity and Distribution 14:234-242) found AWRA to be consistently accurate in various areas outside Australia, and Chong *et al.* (in press, Biological Invasions) found that ability of introduced plants to naturalize in Singapore was predicted well by mean AWRA scores for the same species in other four tropical regions. The latter paper concluded that a global database on assessment scores should be set up, and the Institute of Pacific Islands Forestry's program

on Pacific Islands Ecosystems at Risk (PEIR) already informally posts risk assessments at <http://www.hear.org/pier/index.html>.

Questions/Comments on Recommendation #4:

- P. Alpert – talking about advance warning, it stood out that assessments conducted in one region were appropriate in other regions. This would provide access to these between regions.
- J. Reaser – there will be resistance to creating a new database and if you want it to be global it'd be even more difficult. Encourage instead the use of GISIN.
- H. Diaz-Soltero – need more information, may have some things already in APHIS. What exists already within the Agencies and, is there a way that it can be linked to something like GISIN. Need to know this before ISAC should make a recommendation.
- J. DiTomaso – there is a tremendous amount of work to put everything out there on one site. Linking these might be better.
- P. Brady – with the challenges the Agencies are facing, where are the limited funds going to be spent? Look for opportunities out there that work with the budget struggles.
- P. Alpert – in researching this it was clear that something like this does not exist and this recommendation would bring it to the attention.
- H. Diaz-Soltero – Action Item – ISAC requests that NISC agencies report by Spring 2011, 1)if they do risk assessments, 2)where do they post these risk assessments, 3) are they available to the public or not, 4) any other information that they have on risk assessments done and available from other Countries. 5) This then goes back to the Subcommittee for compilation.
- P. Alpert – seems like a lot of work to go through to find out what we know, that doesn't exist.
- B. McMahon – perhaps this would be a good first step to find out where the federal databases are and getting them in one place, then work to build one.
- P. Alpert – not requesting that a new database be creating, could be an existing one. About the concept of need.
- D. Starling – with intentional introductions think of bioterrorism issues.

It was agreed that this would be an Action Item as follows:

ISAC requests that NISC agencies report the following by Spring 2011:

- 1) If they do risk assessments
- 2) Where do they post these risk assessments
- 3) Whether they available to the public
- 4) Is any other information that they have on risk assessments done in other countries available?

This then goes back to the Subcommittee for compilation.

5. INVASIVE GENOTYPES: Introductions of new genotypes of existing species need to be assessed for risk of invasiveness (submitted by the Subcommittee on Research).

Background: Given what we have learned since the promulgation of E.O. 13112, a refined definition of the biological unit of invasiveness is needed. It is now clearly known that all the genotypes of a species are not equal in invasive potential. For example, certain introduced genotypes of large grasses such as *Phragmites australis* (common reed) and *Phalaris arundinacea* (reed canary grass) have spread much more aggressively than others, and certain strains of microbes can be much more virulent than others. Therefore, the presence of one genotype of a species does not preclude potential impacts from the introduction of additional genotypes. Some current thought and practice suggest that, if a species has already been introduced, we do not need to worry about further introductions of the species. Research now shows the opposite to be the case.

Questions/Comments on Recommendation #5:

- A. Gibbs – who would do this?
- D. Tallamy – this would provide official backing
- J. DiTomaso – what are you talking about? Needs to be more specific.
- J. Reaser – concerns – what does existing mean? With risk assessments look where feasible at the genotypical level of risk, is this the meaning? If it's already invaded there are more questions. Needs to be more specific to encourage management of genotypes that may be a greater risk.
- E. Chilton – few implications – does this include genetically modified plants and does this deal with plants that are already federally listed?

*It was to **table** this item. The subcommittee agreed to revise and resubmit at the Spring 2011 meeting.*

6. RISK ASSESSMENT OF PRECEDENTED HORTICULTURAL SPECIES: Risk assessments should be conducted on horticultural species that have already been introduced but not yet escaped cultivation. (submitted by the Subcommittee on Research)

*It was to **table** this item. The subcommittee agreed to revise and resubmit at the Spring 2011 meeting.*

7. ISAC recommends NISC member agencies such as the Army Corp of Engineers, the Department of Agriculture (ARS and APHIS), and others, expand biological control efforts for invasive species, and in particular those in aquatic systems, which tend to have limited options that are often very costly. These efforts are justified based on economic analyses that suggest an average beneficial return of 10-17 fold for each dollar spent on biological control. (submitted by the Subcommittee on Control and Management).

Questions/Comments on Recommendation #7:

- N. Stone – these are existing programs that are ongoing—where did this come from?
- J. DiTomaso – control efforts are limited, this would expand these efforts, especially in aquatics. It could be done internally.
- E. Chilton – some of the existing programs are up for budget cuts and want to protect them.
- E. Mills – suggest that we put in NISC member agencies.

B. McMahon motioned to approve this recommendation as written. O. Doerring seconded.

Recommendation was approved by general consent.

8. ISAC recommends that the following specific agencies consider the benefits of joining the Invasive Species Compendium: EPA, HHS(CDC), DOI (NPS,BLM. BOR, BOEMRE); DOT (Maritime Org., Coast Guard); State, DOC (NMFS); DOD, and the U.S. Trade Representative. (submitted by the Subcommittee on Organizational Collaboration)

Questions/Comments on Recommendation #8:

- J. DiTomaso – concerned with using the word consider.
- S. Ellis – this was intentional.
- J. Reaser – uncomfortable with this recommendation. Complex issue that has been going on for over a decade. Given that this hasn't been fully vetted by ISAC I encourage this group to think carefully about the message we'd send with this recommendation.
- P. Brady – doing our best to support the databases within our agencies and would ask ISAC not to recommend that they try to branch out.
- P. Alpert – seems to be a trend that recommendations coming out of the subcommittees, where they are thoroughly discussed, but aren't discussed by the full Committee.
- H. Diaz-Soltero – all this is doing is asking the Agencies to look at this again.
- B. Wiltshire – if we're going to proceed with this, if there are Agencies on this list that have already considered this then we shouldn't ask them to reconsider it.

- J. Reaser – having been involved in the first management plan, this item went in before it was part of the strategic plan. It would have been done differently.
- J. Clark – wondering if this recommendation does any harm?
- P. Brady – objectively analyzing where we invest, yes there is a downside to recommending this. By drawing attention to one is out of alignment with all the others that need just as much support and funding.
- E. Mills – invite agencies to present on what they're involved in on this issue and what they need.
- Pete Egan – had the opportunity to consider this proposal a few years ago. Looked at the cost-benefit analysis of it and decided it wouldn't provide what was needed. Did not support it at the time. Unless something has changed, can't see supporting it now.
- S. Ellis – have Agencies to provide input so that we have something to properly assess.

It was agreed that this would be an Action Item.

9. ISAC recommends that NISC member agencies continue to support and encourage participation in National Invasive Species Awareness Week (NISAW).

(submitted by the Subcommittee on Organizational Collaboration)

Questions/Comments on Recommendation #9:

- D. Waitt – missing an opportunity to show support for Michael Bean's requests for our input.

B. Wiltshire moved to accept as written. S. Phillips seconded.

Recommendation was approved by general consent.

Proposed Action Items:

1. In an effort to understand the challenges to minimize spread and control of invasive species along transportation corridors and waterways, ISAC would request former federal officer(s), with experience on this issue, present their perspective and provide advice to ISAC to assist the committee in understanding how a state, region, or county can successfully prioritize invasive species collaborative efforts (*requested by the Subcommittee on Control and Management*).
Approved by general consent.
2. Request to full ISAC/NISC: At the spring 2001 ISAC Meeting, request that U.S. Fish and Wildlife Service provide a report on revisions to the Lacey Act.
3. If there is interest in a White Paper on harvesting let an officer know. ISAC will convene a task team to provide by the Spring Meeting a draft White Paper on incentives for harvesting invasive species (*requested by Jamie Reaser*).
Approved by general consent.
4. NISC staff will revisit the logic/structure of the Prevention Subcommittee and to provide an update at the Spring 2011 meeting. If necessary, suggest revision to structure on how this is set up (*requested by the Subcommittee on Prevention*).
Approved by general consent.
5. Request to full ISAC/NISC: Have a panel discussion of experts on the topic of internet trade at the Spring 2011 ISAC meeting (*requested by the Subcommittee on Prevention*).
Approved by general consent.
6. Request that NISC explore the possibility of conducting an intercessional ISAC webinar in Spring 2011 to review draft of the PCR White Papers (*requested by the Subcommittee on Early Detection and Rapid Response*).
There was also a suggestion to include the Marine Climate Change White Paper.

Approved by general consent.

Lori Williams provided the following for our consideration with recommendations and action items: The goal of intercessional subcommittee meetings is to develop recommendations and action items that are to be shared with the group prior to the meeting for review. That way when we get to the full ISAC meeting, we can focus our time on discussion. Direction of presentations and recommendations/action items are starting to part. Trying to get Agencies involved in the Subcommittee meetings can be difficult. Would having reviewers involved to provide input, instead of the Agencies, be acceptable?

Questions/Comments concerning Ms. Williams' statement:

- J. Reaser – meeting with the Small Business Administration to get advice on what might be helpful in developing our recommendations and action items.
- H. Diaz-Soltero – previously this was avoided by having the committee meetings on the first day, discussion then, draft revisions made, so by the end everyone was able to review and proceed.
- B. Wiltshire – has noticed that presentations are resulting in recommendations that day.
- B. McMahon – not a bad thing to send recommendations back to the Subcommittees.
- B. Wiltshire – ISAC had asked the NISC Agencies for what they need help on. They provided, we need to look at this and see where we can provide assistance.
- P. Alpert – is there a way to officially thank a speaker.
- K. Brantley – a letter is sent. It was agreed that we'd do this.
- O. Doerring – went through the USDA list of needs and ISAC doesn't have the power to do this.

PLANNING FOR NEXT ISAC MEETING

An off-site meeting has to cost less than a Washington D.C. meeting. Timing of the Spring 2011 meeting was discussed, and the month of June was determined to fit most members' calendars. Ann Gibbs will send two separate doodle polls: 1) to determine the best week in June for the Spring 2001 meeting, and 2) to identify a date for the Fall 2011 meetings in Washington, DC.

- J. Clark – there should be some assistance with Minute taking during the meetings.
- L. Williams - Based on need, NISC staff will assist.
- IDEAS FOR THEME OF SPRING 2011 MEETING:
 - A tentative decision was made at a prior meeting to explore health at a future meeting. If health then Iowa would be good. CDC first then Ames second.
 - We could forgo a theme to catch up with all the tabled items.
 - Reintroduction of native and exotic fish introductions.
 - Invasive species and rangeland management.
 - International borders

A survey will be sent out to give everyone an opportunity to submit suggestions for theme.

- SUGGESTIONS FOR LOCATION OF SPRING 2011 MEETING:
 - Colorado - could be a high impact, low cost meeting
 - Atlanta

MEETING WRAP-UP

B. Wilthsire – thanked everyone involved in planning this conference.

PUBLIC COMMENT

No public comment.

The meeting adjourned at 12:03 p.m.