INVASIVE SPECIES ADVISORY COMMITTEE MEETING

"Managing Natural Resources in the Interior West to Control Invasive Species"

June 14-16, 2011

The Magnolia Hotel 818 17th Street, Denver, CO 80202

MINUTES

DAY 1: Tuesday, June 14, 2011

COMMITTEE MEMBERS PRESENT

E. ANN GIBBS (Chair) JANET CLARK (Vice-Chair) AMY FRANKMANN (Secretary) JAMIE REASER NANCY BALCOM EARL CHILTON, II JOSEPH M. DITOMASO OTTO DOERING, III SUSAN ELLIS SCOTT HENDRICK ERIC LANE TIMOTHY MALE **ROBERT McMAHON** KATHY METCALF EDWARD MILLS STEPHEN PHILLIPS **KRISTINA SERBESOFF-KING CELIA SMITH** DAVID E. STARLING NATHAN STONE DOUGLAS TALLAMY JENNIFER VOLLMER DAMON E. WAITT **ROBERT H. WILTSHIRE**

COMMITTEE MEMBERS ABSENT

PETER ALPERT PHYLLIS JOHNSON STEVEN SANFORD JOHN TORGAN

NISC STAFF PRESENT

CHRISTOPHER (CHRIS) DIONIGI KELSEY BRANTLEY STAS BURGIEL

NISC POLICY LIAISONS PRESENT

MARGARET (PEG) BRADY RITA BEARD MATTHEW FARMER PETE EGAN OLIVIA FERRITER

Maine Department of Agriculture Sweetgrass Consulting Michigan Nursery and Landscape Association Independent Consultant University of Connecticut **Texas Parks and Wildlife Department** University of California, Davis **Purdue University** California Department of Fish and Game National Conference of State Legislatures Colorado Department of Agriculture Defenders of Wildlife University of Texas at Arlington Chamber of Shipping of America **Cornell University** Pacific States Marine Fisheries Commission The Nature Conservancy University of Hawaii Aqueterinary Services, P.C. University of Arkansas at Pine Bluff University of Delaware **CPS** Timberland University of Texas at Austin Invasive Species Action Network

University of Massachusetts University of North Dakota NY State Department of Environmental Conservation (ret.) Save the Bay

Assistant Director for Domestic Policy Program Specialist and ISAC Coordinator Assistant Director for Prevention & Budgetary Coordinaton

- U.S. Department of Commerce (NOAA)
- U.S. Department of the Interior (NPS)
- U.S. Department of Homeland Security (CBP)
- U.S. Department of Defense
- U.S. Department of Interior

Ann Gibbs, ISAC Chair, called the meeting to order at 8:02 a.m.

NOTE: Lori Williams, NISC Executive Director was unable to attend the meeting due to illness of her child. Chris Dionigi, NISC Assistant Director for Domestic Policy, will serve as Acting Executive Director and Designated Federal Official (DFO) for the meeting.

Ms. Gibbs welcomed everyone and gave an overview of the meeting theme and agenda. Attendees introduced themselves, and a focus of the meeting was provided. The Steering Committee was formally recognized for their efforts in planning this meeting.

- E. Lane was thanked for his assistance on the local level.
- o J. Clark was thanked for putting the agenda and compiling the meeting documents.
- C. Dionigi was thanked for his help with the field trip.
- K. Brantley was thanked for coordinating the meeting logistics.

ISAC formally acknowledged the passing of Ms. Delpha Arnold, NISC Office Manager, and remembered her for her work for NISC and ISAC.

APPROVAL OF MINUTES FROM THE DECEMBER 2010 MEETING

A motion was made by Stephen Phillips to approve the minutes as written. The motion was seconded, and the minutes were approved by general consent.

NISC STAFF REPORTS

Chris Dionigi, NISC Acting Executive Director

Dr. Dionigi again thanked Kelsey Brantley for all of her work putting this meeting together. He also shared with participants that Delpha Arnold was involved with the DC House of Ruth. It was suggested that in lieu of flowers, donations to the House of Ruth in her memory.

Staff Updates:

- NISC has welcomed two summer interns, Brian Perret and Noah Allington. They will assist the 0 staff in getting some projects completed.
- o Lori Faeth is now in place as Deputy Assistant Secretary for Policy and International Affairs at DOI.
- Work Report of the implementation of the 2008-2010 Management Plan accomplishments and challenges
- NISC staff gave a presentation on invasive species to the National Association of Environmental Professionals they have extended an invitation to ISAC to hold a joint session during their 2012 meeting in Portland, OR.

Kelsey Brantley, NISC Program Specialist and ISAC Coordinator

- Nomination submission period just ended for the 7th Class of ISAC. There were a total of 20 0 applications received to fill 13 open seats, eight of which were current members seeking reappointment to a second term.
- The White House has released a statement on extra websites that need to be purged. The NISC 0 site is one of the websites that was identified. NOTE: Peg Brady clarified that the statement addressed the duplication of sites, and specifically calls out the NISC site (www.invasivespecies.gov) and the USDA site (www.invasivespeciesinfo.gov) as being duplicative.

Stas Burgiel, NISC Assistant Director for Prevention and Budgetary Coordination

• Outreach: The 2nd annual National Invasive Species Awareness Week (NISAW 2011) held on February 28 – March 4, 2011, was a huge success. The week's events focused on Tribal issues, international policy, island issues, state and regional work. In addition, USDA and Forest Service had a day to network and showcase their work. Many of our ISAC members were thanked for their work on this program, as well as the partnering organizations. Preliminary planning has begun for NISAW 2012.

- Putting together a listserv with NCSL focused on invasive species efforts across the states. There is interest and this is progressing.
- Phil Andreozzi, was not able to attend due to his work in Fiji. His work was highlighted.
- Prevention: the USDA did put out their Rule on Q-37. Fish and Wildlife Service is still working on the Lacey Act. Working with the US Office of the Trade Representative on incorporating invasive species into the ongoing discussions of the Trans Pacific Partnership, a free trade agreement involving nine countries around the Pacific rim.
- Lori Williams wanted to stress NISAW for next year and how to improve, the White Papers around PCR are important and she gave appreciation to ISAC members for their work.

NISC RESPONSE TO ISAC RECOMMENDATIONS (from the December 2010 Meeting)

Recommendation #1: That 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.

Response (*C. Dionigi*): NISC staff also plan to meet with Army Corps of Engineers in early summer to discuss possible areas of cooperative work. NISC staff will also explore at that time the question of expanding biocontrol efforts given this ISAC recommendation. Budgetary issues may make this difficult but it is worth exploring.

Questions/Comments on Recommendation 1:

- J. Reaser Army Corp. of Engineers has suffered budget cuts and lost personnel. ISAC should focus our recommendations on funding of this group.
- J. Vollmer has more information on this when ISAC addresses further.

Recommendation #2: That NISC member agencies continue to support and encourage participation in National Invasive Species Awareness Week (NISAW).

Response: See comments by S. Burgiel in NISC Staff Report

Recommendation #3: That NISC adopts the Invasive Species and Climate Change paper and the recommendations within.

Response (*S.Burgiel*): The paper was circulated to all NISC members. However, given that the Council has not met recently, the paper has not been put up for adoption.

NISC MEMBER DEPARTMENT REPORTS

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

(NOTE: Presentation will be posted on NISC Website)

- NCSE Conference: Our Changing Oceans
 - ISAC Member C. Smith commented that it was a tremendous forum and appreciation was given to P. Brady for her efforts.
- National Invasive Species Awareness Week
- o National Ocean Policy
 - NOAA Actions: National Ocean Policy Strategic Action Plans from Presidential Executive Order on July 19, 2010. Nine National Priority Objectives were determined. Listening sessions are being held around the US through June and early July or go to <u>http://www.whitehouse.gov/administration/eop/oceans</u> for further details and to comment.
- Chesapeake Bay Executive Order
- NOAA Habitat Restoration Project Solicitations:
 - Great Lakes Restoration Initiative (GLRI)
 - Estuary Habitat Restoration Program 34 proposals have been received for \$18 million in requested funding.

- Hazard Analysis & Critical Control Point (HACCP) Planning these plans are being required.
- Response to Lionfish Invasion
 - Developing a Lionfish Action Plan for Understanding and Mitigating Lionfish Impacts
 - More information at: http://www.ccfhr.noaa.gov/stressors/linfish_outreach.aspx
- ASTF strategic plan goes through 2012 and are in the process of evaluating the current plan for preparation for the next plan.
 - Rita Beard, National Park Service is the recent policy advancing aquaculture? Yes.
 - O. Doerring Aquaculture operations in the flooded areas is very concerning. Anyone trying to figure out what is going on? NOAA is not front and center on this. Largely managed by the states and where there are Army Corp facilities.

Peter Egan, U.S. Department of Defense

- DoD is sponsoring a Sustaining Military Readiness Conference. Two invasive species topics: preventative measures and Florida TNC Cooperative Invasive Species Management Areas (CISMAs).
- Deadline for Legacy pre-proposals has closed
- Copy of book "Biological Invasions: Economic and Environmental Costs of Alien Plant, Animal and Microbe Species" is out on the registration table. P. Egan was a contributing author.

Matthew Farmer, U.S. Department of Homeland Security (CBP)

- Seen an uptake of Khapra beetles detections coming in through Canada.
- Always on the lookout for pests and has a sample of what's provided to the State Depts. of Agriculture about new and existing pests.

Questions/Comments for Mr. Farmer:

- K. Metcalf pleased that DHS is involved in ISAC. From the Coast Guard prospective – they are waiting for the final rule for an American Standard for the treatment of ballast water.
- B. Wiltshire northern border and transporting of invasives on recreational boats. Heard that custom agents didn't' have the authority to inspect these. Is this true? Under the mandate DHS doesn't have the authority to do this.
- A. Gibbs is there any opportunity to work with states regarding regulations for unique issues? Nothing known at this time.

Rita Beard, U.S. Department of Interior

- Budget situation is dismal
- EPA permits on applications of pesticides over/near water. Estimated at 100,000 applications that will be coming in from federal agencies. This is taking thousands of hours of agency time. October 31 is the effective date.
- Citizens' Advisory Commission (CAC) trilateral projects are continuing.
- Colorado is dominated by federal ownership of different agencies. Rangelands are very important to Colorado. Fear of renewable and non-renewable energy development that will introduce invasive species to rangelands and the long-term effects.
- Park Service
 - Addressing marine invasives in the parks
 - Exotic Plant Mgt. Teams about 10 years old and successful. Other agencies looking at this.
 - Inter-agency effort working with the fire community to call upon an invasive species specialist when the fire starts to reduce the potential impact of spread once the fire is done. Working on a policy that requires this on all emergency response teams.

Questions/comments for Ms. Beard:

• J. Vollmer – Are they going to come up with a weed science title or remain biologists? Team leaders are hired under an ecologist position, with skills that

include weed science. So Weed Science of America should be promoting to students that they should focus on Weed Science Ecology.

• K. Serbesoff-King – (Re: Tiger Team) Is there opportunity for external review on the recommendations? They haven't even been released within the Department.

Is the review available to the public? That hasn't been determined yet.

- K. Metcalf Has an assessment of vector transmissions been done and how they got there? In terms of raw policy the vectors are obvious. What we're focusing on is the awareness and that they are ready for it.
- E. Mills Please reiterate the importance of emergency respondents knowing this.
- S. Ellis (Re: Energy development) Are the conditions standardized and can they be provided? The Bureau of Land Management has the standards and they'll be asked to provide these.
- C. Dionigi (Re: Water release) NISC staff was engaged in this and if you look at opening waterways to alleviate the flooding it'll increase this problem.

LEGISLATIVE UPDATES

Jamie Reaser, ISAC Member

Internationally – in February attended a meeting in Geneva, Convention on Biological Diversity - held as a response to drill down on pathways of the pet, live bait, and live food. Mandate that came was broad and vague reflecting the fact that fewer are involved in this issue. Very little progress was made on any of these three pathways. Hopeful that future opportunities will be available to address this. Access draft report at: <u>http://www.cbd.int./doc/?meeting=AHTEG-IAS-02</u>. (*Comment from S. Burgiel: assessment is accurate and also hopeful on other ways of addressing this.*) Global Invasive Species Program was officially closed this year. Very disappointing. (*Comment from S. Burgiel: this creates a critical gap.*)

Janet Clark, ISAC Member

(Re: the new EPA permits on pesticides near water) The Bill that passed in the House was under very strong lobbying. The companion Bill in the Senate is also being heavily lobbied. Agriculture community would rather this fall under FIFRA. If it passes the Senate it will trump the Clean Water Act and will be detrimental to our environment.

OPENING KEYNOTE ADDRESS: INVASIVE SPECIES IN THE COLORADO REGION

Eric Lane, CO Department of Agriculture (ISAC Member)

SUMMARY OF REMARKS: Mr. Lane gave a background on the issues Colorado faces with regard to invasive species, and how they impact the state's current environmental situation.

PRESENTATION: OVERVIEW OF BIOLOGICAL CONTROL IN COLORADO

Dan Bean, Palisade Insectary

SUMMARY OF REMARKS: An overview of the State of Colorado's robust biological pest control program that provides service to private landowners and public land management agencies managing insect and plant invasive species was provided. The program also provides support to invasive species control programs throughout the West.

PRESENTATION – MANAGING WATER – TAMARISK AND WATER MANAGEMENT

Anna Sher, Denver University (NOTE: Presentation will be posted on the NISC Website)

SUMMARY OF REMARKS: Tamarix spp (tamarisk, saltcedar) are woody invaders of riparian (river and lakeside) habitat, associated with increased flooding frequency due to channel narrowing (Blackburn et al. 1982), increased fire risk (Busch 1995, Busch and Smith 1995, Ellis et al. 1998), decreased or altered plant and/or animal diversity (Brotherson and Winkle 1986, Busch and Smith 1995, Ellis 1995, Bailey et al. 2001,

Kennedy et al. 2005), salinization of soils (Brotherson and Field 1987, Busch and Smith 1995, Zamora-Arroyo *et al.* 2001), and increased evapotranspiration (Sala *et al.* 1996, Cleverly et al. 1997). While tamarisk clearly contributes to these problems, it is also evident that drought and salinity caused by water and land management choices makes habitat available for this species, which is actually a poor competitor as a seedling (Sher et al 2000, Sher and Marshall 2003). Because of this, we have seen that it is possible to control increased spread of *Tamarix* through promotion of native species through hydrology management, particularly overbank flooding (Sher et al 2002). Promoting natives is a critical element of riparian restoration, to achieve general restoration goals as well as to prevent re-invasion (Shafroth et al 2008, Sher et al 2010).

Promoting native species has become an especially urgent issue in the context of unintended *Tamarix* control with a biocontrol beetle in endangered bird habitat. Without the immediate promotion of replacement species, birds such as the endangered southwestern willow flycatcher are in critical danger (U.S. Fish and Wildlife Service, 2002). Millions of dollars are currently being spent on *Tamarix* removal projects, due to the dire need of repair of these ecosystems for improved habitat, recreation, agricultural, and rangeland use; many of these projects have been very successful (Nissen et al 2010). However, generally due to funding and prioritization limitations, it is common for there to be little to no adaptive management and/or effort made to revegetate the site. Without promoting desirable species, surveys of tamarisk removal sites have shown little recovery over time (Harms and Heibert 2006).

Research has shown that hydrology is one of the most important elements in promoting healthy riparian plant communities via both passive and active revegetation, however it is also often one of the most inaccessible aspects for the average land manager (Bay and Sher 2008). It is imperative, therefore, that funding and directives be made available to allow restoration projects to do what is needed to address underlying issues that allowed tamarisk to become a problem; in short, to motivate agencies that manage local hydrology, as well as providing resources for active revegetation of tamarisk removal sites and long-term monitoring to ensure restoration success and protection of endangered species.

Questions/Comments for Dr. Sher:

D. Tallamy – How open are land managers to flooding? One-on-one discussions are taking place with these owners/managers to convince them of the benefits.

B. Wiltshire – Have you looked at the effects of flooding combined with biocontrol? Still in the early stages of evaluating this. Have you looked at Russian Olive? Changes the system as it is shade tolerant. J. Vollmer – With interaction, releasing of water from the dams, does this relate to releasing of fish populations? Yes, this is a consideration and releases of both should be done when optimum.

E. Mills – how much do you communicate your findings with the managers? All the time the findings are communicated.

J. Clark – having followed Tamarisk issues in the west. Anna Sher and Pat S. are rock stars when it comes to this invasive species. The Bill Williams River is an example of implementing experimental flows to promote native plant re-growth.

B. McMahon – Do the cotton woods reseed themselves? Yes, they naturally reoccur.

R. Beard – in the West are seeing unprecedented flows with flooding. Are there any quick strategies that can be implemented to take advantage of this flooding? *The key is identifying good seed sources and where they need to be augmented in the area that will be flooded. You should be able to take advantage of this if the flows are strong enough and the seeds are present. Try for timely releases with seed dispersal.*

SUBCOMMITTEE REPORT - BIOCONTROL IN IPM (CONTROL AND MANAGEMENT)

Joe DiTomaso, University of California, Davis (ISAC Member and Subcommittee Chair)

SUMMARY OF REMARKS: The Control and Management Subcommittee presented information on the importance of developing effective control strategies by using biological control agents in an IPM program. In many cases, biological control is viewed as a stand along control option with successes, partial successes and failures and often does not consider the possibility that a partial success could be a very high success when integrated into an IPM system. There are examples of how such and IPM approach could enhance the use of biological control agents. Two recommendations have been submitted regarding this topic.

Questions/Comments for Dr. DiTomaso:

J. Reaser – In the context of the two recommendations are there specific examples of the gaps that have been identified? The question was asked and a specific gap has not been identified but it's a recommendation to do this.

K. Serbesoff-King – the gap is that once it gets to the land managers on-the-ground there isn't follow-through to implement.

J. Vollmer – it comes down to technical transfer-the actual order.

E. Chilton – complex issue and when you look at what's happened historically you find resistance to changing how it's done. Partially trying to get at changing thinking on the use of biocontrols.

J. Clark – in passing this recommendation on to the Agencies, what outcome does this Subcommittee want? To have a biocontrol approved at a higher level and becomes a part of the program.

D. Starling – (Re: technology transfer) These products are used for what the label indicates. We need to be careful to recognize this.

E. Lane – the separations and disciplines need to be recognized and taken into consideration. Important barriers to success.

PRESENTATION: CLIMATE CHANGE, NATURAL RESOURCES, AND INVASION OF SEMI-ARID GRASSLANDS

Dana Blumenthal, U.S. Department of Agriculture (ARS)

SUMMARY OF REMARKS: Leading researcher on the spread of introduced species in North American prairies. His published work has helped show how high levels of soil fertility can promote invasion, especially in the absence of effective predators and parasites, and how rangelands and abandoned farmlands can be managed to counter this effect. Some of his newest work tests how climate change is likely to further modify invasion in the region. This will require further adaptation of management methods and practices to control invasive species, and now is the time to start building this into management plans for the High Plains.

Questions/Comments for Dr. Blumenthal:

J. Vollmer – Are you aware of Bethany Bradley's research in regards to Cheat Grass? Talking about how to merge the experimental results with the model results and haven't figured it out yet. There is a sub experiment on this.

O. Doering – (Re: snow pack) How did you end up with more snow? When you get to a certain latitude snowfall predictions are increased. It was oversimplified and the treatment doesn't match the snowfall predictions.

J. DiTomaso – the time of precipitations is critical. The timing is so variable how do you plan for this? Looking at the needs of the seeds in relation to precipitation you can figure it that way. One concern in this area is the possibility of less Summer precipitation on the effects on invasive plant spread.

C. Smith – what lessons have been learned in environments that you'd like to restore by enhancing competition? This is extremely important and is an important part of the research; How can restoration be used as a weed control strategy? If the establishment hurdle can be overcome, the slow growing later successional species are going to provide better long-term results.

MEMBERS' FORUM

Leslie Cahill, American Seed Trade Association: Working on native plants.

Scott Hendrick, National Conference of State Legislatures: Continuing to respond to request from Legislature on invasive species issues. Also looking at how the budget cuts are affecting the state invasive species programs. Seeing positive turn-arounds with state budgets. Have seen some states take big cuts to their programs.

Kathy Metcalf, Chamber of Shipping of America: Looking to Capitol Hill for an invasive species program related to vessels. Publications that have recently been introduced: The Ballast Water Treatment Advisory and reports, one in draft and one in final, commissioned by the National Academies of Science Accessing the Relationship Between Propogule Pressure and Risk Mitigation and by the Coast Guard and EPA Efficacy of Ballast Water Treatment Systems. EPA's invasive general permit includes vesels.

Eric Lane, Colorado Department of Agriculture: Looking forward to the field trip and discussion.

Doug Tallamy, University of Delaware: Received an email about the brown stinkbug and that it's breeding on two plants found in their home country. Spending more time responding to papers by Mark Davis telling us that invasive species are fine and that we shouldn't make decisions based on emotion but on science. If Congress gets ahold of this then they'll have reason to cut budgets.

Kristina Serbesoff-King, The Nature Conservancy: Working on cooperative partnerships and have seen success in Florida with Cooperative Invasive Species Management Areas (CISMAs).

Ed Mills, Cornell University: Emerald Ash Borer moving throughout the state. A lot of activity within communities on this. Significant population of Feral Swine. Quagga mussels still present in Lake Ontario and causing destruction.

Stephen Phillips, Pacific States Marine Fisheries Commission: Quagga mussel-contaminated watercraft leaving Lake Mead has garnered attention. The good news is that the issue of sharing information on private boats has been partially resolved, and the States of Arizona and Nevada are receiving information on these boats (and then they pass it on to other states of destination). It looks like the State of Oregon is going to pass legislation to make their boater inspection stations on recreational craft mandatory.

Bob McMahon, University of Texas at Arlington: Completed Quagga Mussel study-they reproduce at between 18 and 25 degrees. They reach 25 mm in length. When the temperatures are above 25 degrees they starve and don't grow. Also working on study to determine if 14 lakes in Texas have the mussels and doing water quality testing and temperatures to develop risk assessments for all lakes in Texas.

Jennifer Vollmer, CPS Timberland: Number of chemicals have gone generic and prices have dropped leaving a shortage of pesticides in the market. Prices will then increase and cycle will continue.

Celia Smith, University of Hawai'i: In the last 6 months Hawaii outplanted baby urchins by children.

Tim Male, Defenders of Wildlife: The next Farm Bill is going to be important for invasive species.

Nancy Balcom, Connecticut Sea Grant: The Northeast Aquatic Nuisance Group held their spring meeting in Canada. Interesting concept with funding was learned. They are looking at Chinese Mitten Crabs and the possibility of spreading into Connecticut.

Jamie Reaser, Independent Consultant: Convention on Biological Diversity – four part project: tool kit of implementation of international agreements on invasive species, tool kit for guidance of the development of a national invasive species plan. Introduced four books that Jamie authored.

Ann Gibbs, Maine Department of Agriculture: Good news on the Farm Bill, \$50 million was awarded to 37 states to work on invasive species (plant pests), and has been very valuable.

Damon Waitt, University of Texas at Austin: The Texas Legislature passed a Bill requiring a disclaimer on all invasive plant lists generated. The City of Austin has developed an invasive species management plan.

Susan Ellis, California Department of Fish and Game: In California there are fewer boats coming through that haven't been inspected. Research project assessing reservoirs on habitability of mussels in the state.

Nathan Stone, University of Arkansas and Pine Bluff: Asian carp and the harvesting have been discussed. There is now a implementation management team for this.

David Starling, Aqueterinary Services, P.C.: Continuation of monitoring surveillance program.

Joe DiTomaso, University of California, Davis: New aquatic weed moving around that is quite concerning.

Otto Doerring, Purdue University: Pleased to hear about EPA's ballast water report and all that it includes. Jeff Dukes has co-authored a book about invasive weeds and climate change. Farm Services Agency was pushed hard to get funding for biomass growing and we weren't included but will continue to try to get into the rules for subsidy programs. Will work on this.

Earl Chilton, II, Texas Parks and Wildlife Department: White list development was stopped and are back to the prohibited list. Giant Cane Reed is a problem in Texas and the second biocontrol was released this year. Budget cuts have affected the invasive species programs in Texas.

Bob Wiltshire, Invasive Species Action Network (formerly Center for Aquatic Nuisance Species): Name changed to Invasive Species Action Network. Banning of felt soles in waders, Maryland, Vermont, Alaska are is causing confusion with anglers. With boat inspection programs, the recreational community is confused and upset about the piece meal of inspections and fees from community to community. State of Montana advertised for their very first aquatic weed specialist.

MOTION TO APPROVE MARINE BIOINVASIONS WHITE PAPER

The ISAC White Paper entitled, "Marine Bioinvasions and Climate Change", was reviewed. A motion was made by Otto Doerring and seconded by Janet Clark to approve the White Paper as written. The motion was approved by general consent.

PUBLIC COMMENT

John Vickery, a natural areas specialist with the Denver Natural Areas Program and Natural Areas Herbicides Working Group, addressed the ISAC:

Weed management issue is that the active ingredients that are developed and marketed are not available to natural and wildlife areas. The IR-4 Project addresses this by issuing uses for specialty crops. Request to ISAC: consider making a recommendation to the Council to support IR-4's ability to make substantive contributions to securing new/additional use registrations for herbicides to combat invasive plants in natural areas and other non-crop area settings, as well as in rangeland.

Questions/Comments for Mr. Vickery:

J. DiTomaso – this is something that the subcommittee should address.

K. Metcalf – why isn't this program working for this purpose? Works for crops only.

J. Clark – steering this to the subcommittee is the most logical way to proceed. We need to be cautious about making recommendations about pesticides.

J. Vollmer – this isn't the issue. The issue is recommending that the IR-4 Program expands their program to include natural areas.

R. Wiltshire – Concerned about using taxpayer money to expand the market for pesticide companies.

K. Serbesoff-King – there's no motivation to expand the products to the natural lands.

J. Vollmer – Tax dollars are already being used to expand markets for chemical companies.

Eric Lane and Chris Dionigi gave an overview of the Field Trip for Wednesday, June 15, 2011. Kelsey Brantley provided logistics information.

There being no further business the meeting recessed at 5:21 p.m.

<u>NOTE: There was no general session on Wednesday, June 15. The group reconvened on Thursday,</u> <u>June 16, 2011 at 8:00 a.m.</u>

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"Managing Natural Resources in the Interior West to Control Invasive Species"

June 14-16, 2011 The Magnolia Hotel 818 17th Street, Denver, CO 80202

MINUTES

DAY 3: Thursday, June 16, 2011

COMMITTEE MEMBERS PRESENT

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Maine Department of Agriculture Sweetgrass Consulting Michigan Nursery and Landscape Association Independent Consultant University of Connecticut **Texas Parks and Wildlife Department** University of California, Davis Purdue University California Department of Fish and Game Colorado Department of Agriculture Defenders of Wildlife University of Texas at Arlington Chamber of Shipping of America **Cornell University** Pacific States Marine Fisheries Commission The Nature Conservancy University of Hawai'i Aqueterinary Services, P.C. University of Arkansas at Pine Bluff University of Delaware **CPS** Timberland University of Texas at Austin **Invasive Species Action Network**

NISC STAFF PRESENT

LORI WILLIAMS (via telephone) CHRISTOPHER (CHRIS) DIONIGI KELSEY BRANTLEY STAS BURGIEL Executive Director Assistant Director for Domestic Policy Program Specialist and ISAC Coordinator Assistant Director for Prevention & Budgetary Coordinator

NISC POLICY LIAISONS and FEDERAL OFFICIALS PRESENT

MARGARET (PEG) BRADY RITA BEARD MATTHEW FARMER PETE EGAN OLIVIA FERRITER LORI FAETH U.S. Department of CommerceU.S. Department of the Interior (NPS)U.S. Department of Homeland SecurityU.S. Department of DefenseU.S. Department of InteriorU.S. Department of Interior

Ann Gibbs, ISAC Chair, called the meeting to order at 8:00 a.m.

Olivia Ferriter, DOI Deputy Director of the Office of Policy Analysis, introduced the guest speaker, DOI Deputy Assistant Secretary, Lori Faeth.

GUEST SPEAKER

Lori Faeth, Deputy Assistant Secretary for Policy and International Affairs, U.S. Dept. of Interior

SUMMARY OF REMARKS: On behalf of Secretary Salazar, Ms. Faeth provided background on invasive species issues and efforts to prevent and control the introduction and spread of invasive species. The ISAC group was thanked for their efforts and asked for expertise and advice on the following key topics:

- 1. Recommend priority areas for NISC to target during a time of limited budgets and provide ideas for the future direction of NISC as we consider the revision of the management plan in 2012.
- 2. Enhance events such as NISAW reaching out to additional constituencies an partners who can help prevent and control invasive species and leverage limited resources.
- 3. Provide input to NISC about which federal/state/local programs are successful and should be used as models that should be replicated and bolstered in the future.

Questions/Comments for Ms. Faeth:

N. Balcom – raised concerns with the Vice President's announcement that the invasive species website was duplicative. *Will be addressed.*

Comment from O. Ferriter: there is misunderstanding and can be cleared up.

E. Lane – efforts on the Lacey Act have been discussed for several years. Concerned with the time it's taking to put together a proposal. Pleased that USDA has made progress on the Q-37. The Lacey Act is a high priority for the Secretary. Will take this concern back to try to expedite the progress.

B. Wiltshire - grateful to hear action items for ISAC. Could we get a copy of these? Yes.

P. Egan – in your experience of the oil spill, what were we doing to prevent invasive species being spread during this natural disaster? Is it possible to raise awareness and do a better job to coordinate efforts at prevention? In the case of this disaster there was a great deal of learning on the ground. This should be considered as a recommendation from ISAC.

P. Brady – With the exercise to do a cross budget analysis, the question is what is the value of this going up the line to the leadership and how we can move forward underscoring the importance of the federal family? Not familiar enough with the cross budget exercise to comment. Continue to be strategic with recommendations and approaches that focus on resources that we have.

Comment from L. Williams: Analysis on this was done a month ago on this. It is valuable to learn the amounts that are budgeted for eradication and is possible. For early detection it's more difficult to get the numbers. Look at more targeted areas to focus on.

Comment from O. Ferriter: In difficult budget times nothing is safe. The better information that we can provide to Congress is good and a cross cut budget is a valuable communication tool.

K. Metcalf – ISAC as an Advisory Committee has difficulty with receiving requests from the top down and advice that goes up from ISAC gets lost. In this time of restricted budgets, NISC is a powerhouse on invasive species. All members of NISC should be involved. If there is anything that ISAC can do to promote the resources in NISC to help on issues with managing invasive species across the board, we're available to do this. L. Williams does a good job communicating the importance.

J. Vollmer – please expand on your suggestion about a recommendation on successful state and federal programs and how you'd recommend that it be written. These are some really good models and this is why and we recommend that you consider these.

E. Lane (Re: cross cut budget) – It seems difficult to get people to value funding if it's not tied to a specific task without measurable dollars = measurable outcomes. Wonder about the value from a budgetary standpoint looking at it in a different, more specific, way. We need to be strategic with budgeting, especially now. Have to have really good messaging and being specific is a good suggestion. T. Male – Related to ISAC's role, specific examples were given on recent actions where ISAC could have provided input. We welcome opportunities to provide input.

Comment from C. Dionigi: Even though ISAC only meets face-to-face twice a year, if there is something specific and time sensitive ISAC can accommodate.

E. Mills – dealing with the public is difficult and it would be helpful to elevate the profile of this issue at the top. Agree that this is a national issue. It's challenging in that the enemy is many which is difficult to communicate but it is a major issue.

J. Reaser – there has been moderate success with the invasive species issue selling itself. Would encourage a proactive strategic planning approach to look at how the invasive species issue can trickle into other high-profile issues. One proposal to consider is a future meeting and take the subcommittees and put the question to all on how we can incorporate invasive species into existing programs and raise awareness.

Comment from O. Ferriter: all agencies are looking at climate change and invasive species is on the radar. There is opportunity to reach out to the agencies to incorporate invasive species in all of the climate change plans.

D. Waitt (Re: the Executive Order) – Would there be value for the current administration to reissue the EO? Need to look at the purpose of doing this and is this the best mechanism to address what you want? B. McMahon – QZAP was a major step in preventing further spread of quagga mussels in the West. Concern with the budget constraints that this work is being forgotten. If this isn't funded it will spread. O. Doerring – gave background on our discussions on biofuels as they've related to invasive species and the White Paper that was developed. One difficulty is that the Dept. of Energy isn't involve in this group. Another is getting involved in Farm Service Agency and there is opportunity for individual members to work to move things. Every once in a while it is necessary for something to be moved up the line and it's important to have a structure for this to happen. You should invite someone from the Dept. of Energy.

Comment from C. Dionigi: We did invite DoE to this meeting.

PRESENTATION: TRI-STATE FIREWOOD CAMPAIGN

Lisa DeBruyckere, Oregon Invasive Species Council (NOTE: Presentation will be available on the NISC Website)

SUMMARY OF REMARKS: In 2010, the Oregon, Washington, and Idaho Invasive Species Councils collaborated on a USDA-APHIS funded project to design and launch an evaluation-based education and outreach campaign in 2010 to not just inform people in Washington, Oregon, and Idaho of the threat of moving firewood, but also communicate an understanding of what people can do (i.e., individual actions) to mitigate the threat. The project evaluated numerous approaches to informing the public about movement of firewood – lessons learned from a Master's Thesis policy student analysis of the project's outreach component was shared.

Questions/Comments for Ms. DeBruyckere:

D. Tallamy – Does this program address anything on packing materials?

Comment from A. Gibbs: this is being looked at but little progress is being made. The problem with the pallet industry is that they're fragmented and it's difficult trying to get to the whole group. Also, the pallets are reused, so many diverse issues surrounding this. It is valid and has been discussed.

J. Ditomaso – how do you define local and has the application created more competition for wood? Firewood and it's source – there are private individuals that are able to treat firewood and sell it at a low price. Local issue – looked at miles and decided that local is anything outside the Pacific Northwest.

C. Smith – How many respondents you had in the survey? 2,000 emails were sent out to previous campers and 500 were sent to those outside the Pacific Northwest. 38% response rate. **How much did it cost to develop the firewood application?** \$1,500 for the technical piece and \$300-\$400 to launch. So for under \$2,000 it'll be done.

N. Balcom – campers that didn't have the message and arrived with firewood from outside the Pacific Northwest, what did you do? *Tried to do firewood exchanges but didn't work due to staffing and logistics issues.* Recommended immediate burning.

K. Metcalf – This is a very impressive outreach program. This should be shared with other states and how can ISAC help collect these success stories and get them out to other states.

Comment from A. Gibbs: there is an effort through the Continental Dialogue to bring people from all over the country to compile efforts and share them.

Response from K. Metcalf: With packaging, this outreach program could work.

R. Wiltshire – Are the time and resources available to expand this to private campgrounds? Yes, every one was approached and provided with posters and the message. Also worked with RV groups. **Assessment and evaluation piece were any of the surveys done by mail or was it all electronic?** It was all done electronically.

S. Burgiel – Is there coordination with the National Task Force? Yes, this is where we started. **Re: Canada – is the risk from border crossing known?** British Columbia is treated as part of the Pacific Northwest.

R. Beard – from a public agency prospective on campgrounds, there are many messages that need to be posted and we've reached the limit on effectiveness. Is there any thought about an all

encompassing message that could be used? Disagree that there are too many messages. In fact, the more informed we are the better. We need to stay the course and continue what we're doing.

J. Reaser – similar to other environmental dilemmas we've had---paper vs. plastic. How much of your message is going to discouraging people from burning firewood or providing alternates? This was a big consideration but the reality is that people are going to have a campfire. Might work on a national level.

J. Clark – these is just one component to what OISC is doing. Can you comment on your budget and your resources? Biannual budget is \$74,000/year from lottery funds leveraged with federal funds and non-profit contributions. Council budget is \$15,000. Congratulations on what you're doing with such a small budget.

E. Lane – questions about local and policy issues. Possible that it may need to be more specific and looked at from the scientific standpoint to determine what is local. This topic has sufficient substance in all the different realms that a 2-day workshop someplace on a national level would be extremely beneficial to state-level policy makers. How can ISAC pursue this as an action item/recommendation to facilitate this transfer of knowledge?

D. Waitt – the Communication subcommittee has been discussing NISC giving a "good housekeeping" type of seal for efforts like this. *This would be very good.*

B. McMahon – you can get programs like this to go national. It has happened in the aquatic arena by getting all collaborators involved. This is great but it also takes a great deal of funding.

K. Serbesoff-King (Re: aquatic campaign) – Are there measure and outcomes?

Comment from B. McMahon: Yes there is some but it's not recent.

Response from K. Serbesoff-King: May be too complacent with this.

Comment from R. Wilthsire: Nothing being done.

K. Serbersoff-King: There has to be a federal role in this. With the <u>State</u> Invasive Species Council's it's important to have a coordinator. It'd be interesting to see what the successes are and could be if each <u>State</u> council had a coordinator and the amount of funding that would be needed to do this.

R. Wilshire – if anyone is interested in an all taxa outreach campaign please see me for more information.

PRESENTATION: PCR SCIENTIFIC AND REGULATORY ISSUES

PANEL MEMBERS: Kevin Kelly, DOI/BOR; John Darling, U.S. EPA (via telephone); Larry Ludemann, USDA Ctr. for Veterinary Biologics

(NOTE: Presentations will be available on the NISC Website)

SUMMARY OF REMARKS: The increased interest in DNA-based tools for the identification, detection, and monitoring of invasive species has prompted widespread speculation on the future availability of inexpensive, rapid, and accurate means of identifying specimens and assessing biodiversity. There have been numerous examples in recent years of resource agencies struggling to make the right management decision because of inconclusive results from alternative laboratory analysis of invasive species (one example being dreissenid veliger plankton samples). In addition, agencies that are responsible for managing AIS require a separate and independent verification of early detection of AIS before taking any action. These agencies speak of a need to test the performance of individual laboratories and validate the reliability of their analytical results, as well establishing an accreditation program for lab certification.

John Darling presented the finding from his paper, From molecules to management: Adopting DNA-based methods for monitoring biological invasions in aquatic environments (Darling and Mahon, 2011).

Questions/Comments for Dr. Darling:

E. Mills – can you elaborate on the inhibitors and factors? There are a number of them. It's important to test environmental samples to include the potential inhibitors in your tests.

C. Dionigi – where do you see other technologies fitting in with this? [Unable to capture response due to difficulty with telephone reception.]

Kevin Kelly presented information from his paper *Reliability of Early Detection of Dreissena spp. Larvae by Cross Polarized Light Microscopy, Image Flow Cytometry, and Polymerase Chain Reaction Assays Results of a Community Double-Blind Round Robin Study (Round Robin Study Phase II). Marc E. Frischer, Sandra A. Nierzwicki-Bauer, and Kevin L. Kelly, 2011).*

Questions/Comments for Dr. Kelley:

C. Dionigi – Problems with gel interpretation, are you proposing anything that would normalize these variables? There needs to be a more quantitative way to compare the samples. This is being addressed in his *lab.* Do we need better sequence data? Comfortable with sequencing.

Larry Ludemann (via telephone) gave a presentation on Assay Validation and Laboratory Accreditation.

Questions/Comments for Dr. Ludemann:

C. Dionigi – Enzyme Link Immnio-sorbption Assay is the underlying technology for the pregnancy testers and drug test kits. It is possible that we could use this technology with invasive species and is going to allow us to do things that we've never been able to do before.

SUBCOMMITTEE REPORTS

Subcommittee on Early Detection and Rapid Response

Stephen Phillips, Chair

The subcommittee will begin work on a PCR White Paper outline. Once the draft outline is approved, a White Paper will be developed.

Action Item: ISAC members approve the concept and outline for the development of a white paper focusing on detection and monitoring of invasive species by polymerase chain reaction (PCR).

Recommendation From the Early Detection and Rapid Response Subcommittee – ISAC recommends that appropriate NISC agencies (possibly USDA APHIS or EPA or others) develop a white paper focusing on the detection and monitoring of invasive species by polymerase chain reaction (PCR). The paper should include the following:

- 1. An overview of PCR technology
- 2. Its current use in AIS detection, management and regulatory actions
- 3. A review of existing Federal policies governing its use
- 4. The development of a national program to establish:
 - a. Protocols for sample collection
 - b. Protocols for assay validation and optimization
 - c. A laboratory standardization and accreditation program
 - d. Standards for regulatory use and license to use

5. This effort should be coordinated with the ISAC EDRR subcommittee.

Please refer to the document "Working Outline for White Paper on Detection and Monitoring of Invasive Species by Polymerase Chain Reaction (PCR)."

Questions/Comments from the group:

O. Doerring asked for clarification that we are asking the agencies to due this.

D. Starling – this is correct as we need their expertise and we recognize that this can't be done gratis and will need to find funding.

S. Phillips – recognize this will take a lot of effort but don't want to lose momentum on this project.

B. McMahon – there isn't enough technical expertise on the Subcommittee to do this. This is a sensitive issue and we need expert help.

O. Doerring – the way that the recommendation is worded we are asking a group of agencies to do this.

D. Starling – yes. This is one approach but perhaps we need a recommendation that addresses the urgency with the committee doing the work of finding the agency to assist.

C. Dionigi – the way it works under FACA is that the EDRR Subcommittee can involve anyone that is needed to develop this. The work product then comes through ISAC. The recommendation should recognize agencies. **J. Reaser** – With this wording it's not likely to get picked up. One mechanism to consider is a partnership with National Academy of Science, etc. to take this to the next level of credibility.

S. Ellis – this is an urgent issue for state managers. There might be a way to take what we learned today and work on it internally prior to asking the agencies to move on this.

R. Wiltshire – conceptually everyone seems to be in agreement. Provided changes to the wording of the recommendation to: *"commit to fully supporting the development of an ISAC"* instead of *"develop a White Paper"*.

O. Doerring – need a justification paper on this issue to take to agencies, partners, etc.

J. Clark – acknowledged and thanked D. Starling and the Subcommittee for their background outline paper that was submitted with the meeting documents.

D. Starling - can we do this mechanism under the scope of the Subcommittee?

O. Doerring – the document he's suggesting is different than the outline that was submitted.

S. Phillips – It is possible to develop a justification paper. The Subcommittee is going to proceed.

K. Serbesoff-King – this is happening right now within the Agencies, it's great technology but it isn't being used now and the agencies need to know that they need to use this now.

M. Farmer – it's narrowed down to PCR and maybe we should step back and look at detection methods. **D.** Starling – we understand that this process can apply to any assay method and is not limited to PCR. If every method was included it was be huge.

P. Brady – If we were to approach the Academy would it be beneficial to have a letter from the agencies? Yes.

B. McMahon – we're at a tip of the iceberg on this and this is a burning issue. *Willing to draft a background paper.*

<u>NOTE</u>: S. Phillips proposed instead to use the #2 from the Action or Information Item Template as an Action Item vs. a recommendation.

Proposed recommendation language:

"The increased interest in DNA-based tools for the identification, detection, and monitoring of invasive species has prompted widespread speculation on the future availability of inexpensive, rapid, and accurate means of identifying specimens and assessing biodiversity. There have been numerous examples in recent years of resource agencies struggling to make the right management decision because of inconclusive results from alternative laboratory analysis of invasive species (one example being dreissenid veliger plankton samples). In addition, agencies that are responsible for managing AIS require a separate and independent verification of early detection of AIS before taking any action. These agencies speak of a need to test the performance of individual laboratories and validate the reliability of their analytical results, as well establishing an accreditation program for lab certification."

Additional comments from the group:

R. Wiltshire – talking about two different things now. One is a recommendation that this gets done, the other is the implementation of the recommendation.

D. Starling – recommending that the Subcommittee move forward with writing the background paper.

C. Dionigi – recommendation should be about the approach and leave the implementation open.

A. Gibbs – this is similar to what the recommendation currently reads.

E. Mills – the Subcommittee has discussed this. The veterinary model is good and could be applied to this issue.

J. Reaser – the Subcommittee can move forward with this. As far as Action Items, pending a partnership then we'd need letters of support. Federal agencies identify individuals with this expertise.

D. Waitt – also see this as two separate things and feel that this Subcommittee is qualified to write this White Paper. Keep the recommendation but modify it slightly to indicate that the Subcommittee would write the paper with agency input.

D. Starling – procedurally the Subcommittee would like validation from ISAC.

C. Dionigi – concrete recommendation from E. Mills about what model to use.

Damon Waitt moved and Janet Clark seconded that ISAC endorse the work that this Subcommittee has done and encourage them to move on and write a PCT White Paper. The motion was approved by general consent.

Further comments:

R. Wiltshire - would you like a resolution from NISC on this?

D. Starling – Is it needed? No.

C. Dionigi – question is on timing and when the background paper should be done. If it needs ISAC's approval then we'd need to plan for this.

O. Doerring – if a good draft existed then it could be informally introduced for advice on proceeding.

S. Phillips – these are all steps that need to be taken and glad to see that ISAC supports this.

Based on the discussion and approved motion, both the Action Item and Recommendation were removed from consideration.

Subcommittee on Research and Information Management

Doug Tallamy, Reporting

The subcommittee has thoroughly discussed Action Items and Recommendations which were coalesced into one Recommendation: Introductions of species or their subsets (i.e. moving organisms from where they occur to where they have never occurred historically) by actions of federal agencies and contractors need to be assessed for risk of invasiveness.

Questions/Comments from the group:

A. Frankmann – how are subsets defined? Any genotypes—portions of the genetic realm that we describe as a species. **Clarify contractors?** These are contractors hired by Federal Agencies for federal work. **What assessment is used?** There are a couple of different models out there. Don't want to be specific on what assessment should be used as it may changed with the species.

Subcommittee on Communication, Education, and Outreach

Nancy Balcom, Chair

Discussed the suspended Newsletter that will be picked up in the future. Have a format for White Papers that are developed for promotion of the content of the papers. Working on a communications plan and J. Clark was thanked for her efforts on this. Will be sent to the full ISAC for consideration. Smithsonian contacted her for a display which will be discussed at a future Subcommittee Meeting. Efforts are also progressing to look as Best Management Practices for urban landscapes. This will be pursued. Damon Waitt will take over as CEO subcommittee chair.

Questions/Comments from the group:

P. Brady – just want to make sure of the website address. It is correct.

C. Dionigi – we should have either a day on invasive species or holding our ISAC meeting in conjunction with this in 2012.

R. Wiltshire – recognized the work that J. Clark did on the Communications Plan and N. Balcom for her efforts.

Subcommittee on Prevention

Kristina Serbesoff-King, Reporting

Discussion took place on the internet trade and invasive species being moved through this vector. All members will review this. Hull fouling and internet trade were both discussed and will be brought to the full ISAC in the Fall and what direction this should take and what is already being done from other agencies. Will have an interim call with the UK and all ISAC members are invited. Action item was submitted for discussion.

Subcommittee on Organizational Collaboration

Susan Ellis, Chair

A listserv of all invasive species councils around the U.S. for communication has been developed. NISAW was discussed in regards to where could we improve and what should we do for 2012. Will hold an interim conference call. Objectives in the Management Plan were reviewed to see where we could focus our efforts. Without knowing what has been accomplished.

Bob Wiltshire thanked Susan for remaining as the Subcommittee Chair.

PRESENTATION: INVASIVE DISEASE VECTORS: A CASE STUDY OF EXOTIC MOSQUITO SPECIES

Chet Moore, Colorado State University (NOTE: Presentation will be available on the NISC Website)

SUMMARY OF REMARKS: The issue of "emerging diseases" has been a central topic of numerous conferences and publications. Most of these diseases are zoonoses (diseases of animals transmissible to humans) and a majority the pathogens are vector-borne (transmitted by insects, ticks or other invertebrates). This presentation reviewed the issue using exotic mosquito species as an example of the ease of introduction and spread of vectors and their potential involvement in transmission of domestic and exotic pathogens. Also outlined were some of the difficulties in monitoring and intercepting exotic vectors.

PRESENTATION - ENERGY DEVELOPMENT AND INVASIVE SPECIES

Dan Manier, Colorado State University and U.S. Geological Survey (NOTE: Presentation will be available on the NISC Website)

SUMMARY OF REMARKS: Large areas in the intermountain West are being developed for oil extraction and wind power. The associated land disturbances and movement of people and equipment risk promoting invasion by introduced species. This presentation highlighted the work of Drs. Aldridge and Manier at the USGS and Colorado State University in Fort Collins with collecting field data to assess these risks and test the specific factors linked to establishment and spread of invasives and their findings.

Questions/Comments for Dr. Mainer:

C. Dionigi – ecological meltdown and facilitated invasion are talked about, were there any findings between the species? Yes, it was looked at but it hasn't come out that way but there were similarities there.

PRESENTATION: WATER, ENGINEERS, AND INVASIVE SPECIES – ZEBRA & QUAGGA MUSSEL MONITORING, VULNERABILITY ASSESSMENT, AND RESEARCH PROGRAMS

Mike Gabaldon, U.S. Department of the Interior (BOR) (NOTE: Presentation will be available on the NISAC Website)

SUMMARY OF REMARKS: Bureau of Reclamation provides vast amounts of water to agriculture and U.S. citizens every year. Located in 5 regional offices in the Pacific Northwest. Quagga and Zebra mussels have the capacity to impact hydropower and water delivery facilities. There are many USBR facilities with confirmed mussels. This has not affected the delivery of water or generation of power to any Reclamation customer.

There are great potential impacts to all areas of operations. Efforts involve:

- Monitoring and Detection Program
 - positive findings continue but are less due to efforts
- Facility Vulnerability Assessments
 - 75 facilities will be assessed
- Research on Mitigation
 - Goals are to understand mussels and develop means of PCR testing.
 - Looking at filters and coatings.
 - Zequanox moluscidide: *Pseudomonas flourescens* has just been approved by EPA allowing technology transfers, and testing for eradication.
 - UV Light Evaluations being tested at Hoover Dam.
 - Pulse Pressure Devices
- Outreach and Education is ongoing
- Other investigations are taking place

Questions/Comments for Mr. Gabaldon:

J. Clark – regarding Tamarisk and the impact that water release has on this species. How amenable is the Bureau of Reclamation to looking at timing of water releases? It is difficult but it is being looked at where possible.

J. Vollmer – communication mechanisms with the canal districts? Very good at working on-the-ground will the districts making sure that they are educated on this.

E. Mills – how much did you utilize the experiences in the East to develop strategies? Through the Corp of Engineers we have learned from these experiences.

B. McMahon – with water transfers, many of the secondary infestations are from secondary water transfers. Is anything being done to prevent this? Not sure if this is being addressed—usually transfers are through rivers. There has some work on desiccation but are limited on stopping motion of water downstream. Zequanox doesn't give 100% kill. Can you operate if it doesn't? Yes, we're operating now and doing research on the amount of kill.

E. Chilton – how much is spent annually on R&D and cleaning?

Comment from D. Hosier: not sure on total dollars spent but it's a great deal. Research funding total runs \$10-15 million.

PRESENTATION: WILDLIFE SERVICES AND VERTEBRATE INVASIVES

Larry Clark, U.S. Department of Agriculture (APHIS)

SUMMARY OF REMARKS: Presentation given covered the following key points:

- o National Wildlife Research Center
- Processes utilized Look at problems and risks, look at assets and partners, align with goals, then work on products/methods.
- Invasive Species Research Facilities are found around the U.S. and utilize these processes to deal with invasive species.

FINAL ADOPTION OF RECOMMENDATION AND ACTION ITEMS

Action Items

- 1. ISAC requests a presentation on the Lacey Act revision activities at its 2011 Fall meeting and welcomes an explicit invitation to participate in any associated public review and comment process.
- 2. Ask L. Williams to communicate with Secretary Salazar on if he could assist enhancing the visibility of NISC and ISAC.

Questions/Comments on Action Item #2:

- **K. Metcalf** not how, but if.
- **J. Reaser** why was this just directed to Interior and not all the Departments? We were going with the agency that signs the letters.

- **D. Starling** do we need to work on this?
- **R. Wiltshire –** We're so under everyone's radar screens that we need to improve this. By putting out a press release when members come on and/or leave we could generate.
- **O. Ferriter** newly appointed members are announced. When members are going off this might not be seen as news. There is nothing to stop any members from talking to their local media.
- **C. Dionigi** these meetings are open to the public.
- J. Reaser recommendation to the Subcommittee, we've seen a pattern of fewer people requesting membership on ISAC. Perhaps look at drafting press release for the Fall application process.
- **K. Metcalf** the point was not to give recognition to an individual member but to, on a cabinet level, illustrating what NISC and ISAC do.
- **K. Metcalf** we were trying to send a message out about ISAC. We have one job and that is to advise NISC. It is not our job to send out communications for the Secretaries.
- **R. Wiltshire** would not like to see press releases removed from this Action Item. Want to know if there is a mechanism to send press releases regarding the appointments of members to ISAC.
- **C. Dionigi** we don't have to say specifically how to do this.
- **A. Gibbs** can't send it as ISAC.
- **O. Ferriter** as members are appointed we can work through the department to do this and can work with local media and Congress. Yes, this can happen.
- **J. Reaser** there are very few things that we've taken up to this level. Not the best policy approach.
- **K. Metcalf** an example was given from DOD on press releases that are sent out. These are canned releases approved by the Secretary.
- **S. Ellis** Olivia answered and don't need this Action Item.

This item was removed.

- 3. ISAC requests presentations on the differences on awareness campaigns vs. social marketing at a future meeting.
- 4. ISAC requests a presentation from DHS Customs & Border Protection to discuss their authority to conduct inspections for invasive species of privately owned boats and trailers at international borders.

Questions/Comments on Action Item #4:

M. Farmer – some of this might be the Dept. of Transportation as well.
P. Brady – do we need to be more specific and include hitchhikers/invasives?

5. Propose that ISAC have a full day of the Fall 2011 ISAC meeting focused on ecommerce and invasive spp. We would recommend that this be an additional day in addition to the normal 2 day meeting. We will invite presentations from federal agencies that are involved in curtailing illegal trade through Ecommerce (commerce interdiction) as well as other experts in this subject (both those that deal with invasive species as well as those who deal with ecommerce and other types of trade). We will advertise this to a broader audience and ask them to attend/participate in this day of ISAC. Including NGOs e.g. horticulture, industry, pet trade, trade industry, conservation, and states.

Questions/Comments on Action Item #6:

- E. Lane add states.
- **D. Waitt** this could be a theme rather than an additional day or it could be a part of NISAW.

J. Reaser – intent was to use this full day as part of the process to develop a White Paper on ecommerce and invasive species. It would be advantageous to have this as part of an ISAC meeting.

- **R. Wiltshire** the Fall meeting was already extended to 2 ½ days.
- **A. Gibbs** this would go to the Steering Committee for consideration.

Approved by general consent as written.

Recommendations

From Control and Management subcommittee — To enhance the effectiveness of biological control
programs, ISAC recommends that NISC agencies working on biological control of invasive organisms
plan, conduct, and evaluate their programs at the inception of the program in the context of an
Integrated Pest Management (IPM) approach. This requires integrating biological control with other
management options (i.e., physical, cultural, and chemical) to achieve maximum effectiveness.

ISAC has previously recommended an IPM approach to invasive management strategies. While most biological control efforts often consider themselves a stand-alone, silver bullet solution, a more integrated approach should increase the probability of success. This recommendation addresses the National Invasive Species Management Plan, Implementation Task CM.1.2: Identify and address strategic gaps in regional invasive species control and management efforts and tools.

Questions/Comments on Recommendation #1:

E. Mills – remove potential.

R. Wiltshire – can we say all agencies or should we indicate NISC.

Bob Wiltshire moved to approve as written. Otto Doerring seconded. Approved by general consent.

2. From Control and Management subcommittee — To further enhance the effectiveness of biological control programs, ISAC recommends NISC Departments and Agencies that oversee and conduct control operations utilizing biological control agents become more fully engaged in adaptive management by collecting and sharing post-release monitoring data. This Integrated Pest Management (IPM) approach should emphasize partnerships with local controlling authorities, post-release monitoring and collaborative programs with other stakeholders in other pest management disciplines. This recommendation addresses the National Invasive Species Management Plan, Implementation Task CM.4.1: Enhance ecosystem recovery decision tools and conduct ecosystem assessments.

O. Doerring moved to accept as written. E. Chilton seconded. Approved by general consent.

3. From the Communication, Education and Outreach Subcommittee – As directed by EO 13112, section 4, item F, ISAC recommends that NISC support the website, <u>www.invasivespecies.gov</u>, as the primary website coordinating critical and unique information on national invasive species and serving to provide a linkage for accessing all federal invasive species programs.

Questions/Comments on Recommendation #3:

- **C. Dionigi** what was the intent behind national invasive species?
- **Response from N. Balcom**: not sure if it's directed or intended.
- N. Stone the ANSTF has their own website-does this imply that all have to go through this site?
- **B. McMahon** will there be time to restructure these grammatically? Yes.

Bob Wiltshire moved to accept as written. Celia Smith seconded. Approved by general consent.

4. From the Research Subcommittee – Introductions of species or their subsets (i.e. moving organisms from where they occur to where they have never occurred historically) by actions of NISC Departments and Agencies and contractors need to be assessed for risk of invasiveness.

Background: The National Environmental Policy Act of 1969 (NEPA) requires a "detailed statement by the responsible official" for "major Federal actions significantly affecting the quality of the human environment." The research subcommittee would like to emphasize the degree to which this applies to relocating plants and other organisms (e.g. oysters, tunicates, sponges) for use in research, aquaculture, restoration, or conservation, or as biofuels or ornamentals. This could be intercontinental movement (e.g. Miscanthus, Arundo for biofuels; Elaeagnus, multiflora rose, crown vetch, saw-toothed oak, or salt cedar for restoration or conservation, Asian oysters and fish for aquaculture) or interstate

movement (e.g. Spartina for restoration; Panicum for biofuels) of species, or particular genotypes of species.

Questions/Comments on Recommendation #4:

- A. Gibbs who is this directed to?
- **C. Smith** change it to NISC.
- P. Brady what are we aiming at with this with contractors? Is it more federally funded projects?
- C. Smith this seemed useful to include this pair.
- **P. Brady** perhaps we're talking about a broader funding mechanism.
- **O. Doerring** if we didn't go that broad than we'd hit more.
- P. Brady the other area of concern is with research activities.
- J. Clark say "and their contractors"
- **N. Balcom** contractor or grantee?
- J. Vollmer wouldn't the word actions cover funding?
- **J. Reaser** the key authority that covers this is NEPA.
- **R. Beard** all federal activities are covered by NEPA. Staying with this makes a lot of sense.
- C. Smith if this is approved in concept then the Research Subcommittee will go back and reword this.
- **O. Doerring** we'll refer to the Act and to the activities.

Damon Waitt moved to accept and Bob Wiltshire seconded. Approved in concept by general consent.

NOTE: The language of Recommendation #4 was revised (see final version of ISAC Recommendation Letter to NISC).

5. It was recommended by ISAC to appoint R. Wilshire as Vice Chair.

PUBLIC COMMENT

There was no public comment.

N. Balcom – make sure that invasive species management is incorporated into planning for and emergency response to natural disasters of all kinds.

E. Chilton, J. Vollmer, B. McMahon – Discussion took place on the Army Corp of Engineers biocontrol program and the proposed budget cuts.

ISAC HOUSEKEEPING

Planning for Next ISAC Meetings

Dates for the fall 2011 in DC were discussed. Late November and/or early December were suggested. C. Smith mentioned that the Prevention Subcommittee is interested in meeting with ANSTF.

Dates and possible locations for the spring 2012 Meeting were discussed. Suggested locations include the Gulf of Mexico region, Portland, OR, and Atlanta, GA. L. Faeth suggested not going to the Gulf region in June due to the oppressively hot temperatures during that time of the year.

ISAC Member Status

ISAC members were reminded that the first term for those appointed in 2009 (Class 5) expire September 16, 2011.

Ann Gibbs thanked departing members Nancy Balcom and Janet Clark for their hard work and dedication while serving on ISAC. Janet thanked Ann for running the meeting so efficiently.

Bob Wiltshire volunteered to serve as Vice Chair, replacing outgoing member Janet Clark.

<u>A motion was made by Kristina Serbesoff-King and seconded by J. Vollmer to appoint R. Wilshire as</u> <u>Vice Chair. Approved by general consent.</u>

There being no further business, the meeting adjourned at 5:07 p.m.