

5/12/08

## **Day 1 – ISAC Meeting – Monday, May 12, 2008**

### **Welcome and Introductions – Names of attendees listed (available on sign-in sheet)**

#### **NISC Staff Reports**

Chair - 1<sup>st</sup> order of business – Does anyone have any corrections to the 2007 minutes?  
Female - Move to approve, seconded, approved.

Lori – NISC Staff report –

We are going to do a round robin. I will do the overview, and the others will cover more detailed topics.

Overview, per Lori –National invasive species mgt plan – comment period ended march 13, 2008, and we expect to have the comments reviewed and have another draft out in June. Final draft is due July, Aug, or September 2008. We will schedule a Washington meeting to finalize this. In term if ISAC's elections, we are in the process of selecting ISAC members (12-13 slots available). Further details on the web-site come to the communications subcommittee meeting. USDA is helping, and we have a mock site ready for road testing and we are still getting input from NISC members, and we have a cd demo if you are interested in taking a look at it. Staff changes – Mary Josiah, admin assistant, is not here b/c she will be moving to Wales and get married this summer. Phil is in Guam. A couple of issues – In terms of legislation, (muffled) – introduction of a bill is occurring in the house of natural resources committee. There are some activities going on at the national level regarding aquatic and terrestrial animals. The ballast water bill will be discussed later. There's a lot of controversy, but it's chugging along. European Union is getting active. If you have contacts in Europe, this is a good time to exchange information. I was in Madrid, New Zealand, and Australia, and they are doing some exciting work. I'll turn it over to Richard.

Richard – A couple of things taking place – NAFTA CEC (commission for environmental quality) has been working on an assessment of invasive species that can be used by all three countries. AS you recall, we've been working on risk assessment of catfish and a North American species evaluation of a snake. In January, it's being cleared by all 3 countries, the comments are currently being incorporated, and we should have a publication by the end of Aug 2008. The other item – North American plant protection organization is working on developing standards for plants, and the standards are in the final draft, and they are going through country clearance. After that, they will be published by the end of October.

Phil – So, I live in Guam now it has been 8 months. We are helping with outreach regarding brown tree snake issue and more invasive species issues. The Micronesian Chief Executive Summit is requesting this assistance. These islands are new to this. These Chief Executives get together twice a year and discuss the issues under their subcommittees. One of their primary subcommittees is the invasive species council.

Recommended actions are given directly to Chief Executives twice a year. This is amazing. When I first went, I wanted to assist Regional Invasive Species Council (RISC). I knew something was going on with the military and now 70% of what I do has to do directly with the military increase. In the next 10 years, the total military personnel in Guam will triple. They are increasing other branches of the military as well. Population will be increasing to 220,000 people. There will be unbelievable amounts of construction. With the large amount of traffic, potential for invasive species spread will greatly increase. Guam doesn't get a lot of the attention because Hawaii overshadows them. Guam is the transportation hub of Micronesia.

So, there is direct access to chief executives and the potential increase in funding due to military build up. We are looking to an early response plan to address biosecurity protocol throughout the island. With that, the other thing to talk about is the crosscut budget, and I'm helping Lori with that from afar.

Richard – What type of invasives does this cover?

Phil – several categories including Lepidoptera.

Male – May 14<sup>th</sup> subcommittee meetings at 2:30 pm. EDRR will be meeting. If you look under tab 9 of your books, you'll see an agenda and a proposal that has been mentioned in the national management plan. When invasive species show up, they quickly overwhelm natural resources. We need technical expertise to contain/eradicate the spread of those species. What are the public and private sectors funds that address the rapid response activities? David thought we could leverage public and private sector funds. As an outgrowth, how would we make those decisions and make the funds available? How do you avoid perverse incentives (e.g. emergencies). We looked through a lot of rapid response plans, and put together some of those ideas around that. What I would like is to have interested ISAC members to think about this issue and to think about possible models, how can we structure this for those of you who work for entities that could use this? I would like to discuss this on May 14<sup>th</sup>.

Peg Brady – I have been w/ NOAA shy of 5 years, and have more experience. I have been working in the habitat program in the fisheries habitat office, where invasives fit in prominently in the budget information. More recently, I've worked with ballast water situation that has been an issue. With that, NOAA continues to fund research efforts to look at monitoring regarding invasives, particularly with ballast water. This continues to progress. I have more details and a fact sheet if you're interested as well as a draft proposal. I have also looked at some NPDES issues related to invasives. US Vessels may be required to follow NPDES rules. Please introduce yourselves.

Male – We've had a few more people come in – (they introduced themselves – attendees listed on sign-in sheet).

Female – Before we proceed, thank you to those who have made this meeting possible as well as the field trips and logistics of it all.

## **Introduction to Alaska**

3 people will visit with us: Mark Becich, Hans, Neidig, and Ken Taylor.

Person 1 (talking on behalf of the Mayor?)– I want to welcome you to Anchorage and say little about our community and what we are doing with respect to invasive species. One of my messages is that we need more education, and local organizations and people can certainly help. How you engage them is paramount. Anchorage is the 65<sup>th</sup> biggest community in the US. We have a lot of cranes in the streets right now (new convention center downtown and we'd be happy to welcome you to our community if you would like to use that for another meeting). Our major corridor is E and F street, and we are working to revitalize downtown. We are a major transportation hub for Alaska. We have a major port and major air cargo and tourism and military presence. We are urban and cosmopolitan but our motto is also wild – regarding natural resources including wildlife refuges. Right now is the peak of the shorebird migration coming from all over the world. We have 7 major watersheds, and all but 1 are home to pacific salmon that return each year. We have great natural resources, and we are also at risk of being affected by invasive species (e.g. creeping buttercup and northern pike raising havoc w/ salmon populations). The majority of the community, the people here love living w/ wildlife but are unaware of the invasive species issue. People talked about bears – brown bears are entering the community. Nobody at the creek cleanup event that we had discussed invasive species, despite at Valley of the Moon Park is ground zero for an invasive cherry tree. This is something to think about. It's real, and we need to do a better job at educating the people and what they care about as well as economy and jobs. Let's make this esoteric issue a real mainstream issue to the community. We are working towards a cooperative weed management group "CanWin" (Citizens against noxious weeds in the north). Our Parks Department is the most active, and they have started a "Weeds Warriors Group". They have people in the community going out and pulling weeds. It's a really important opportunity to educate the public and make them feel like they are doing something. Addressing herbicides and pesticides are something to consider when controlling an invasive problem. Less toxic is better. Regarding the invasive cherry tree in the watersheds, we are working on getting a graduate student to research this in the riparian area and its effect on salmon in the area as well. Our parks is trying to take the lead on landscape projects so that we only use native plants. I manage a program called "Salmon in the city", and we have received some awards for work we've done. Invasive species is part of the overall view of things we are doing with respect to salmon programs. National fish habitat initiative may be an opportunity to integrate this as well. Pike is an issue, and DFG has been working with us to deal w/ Pike, and we need to do certain things to our lakes to deal w/ Pike (drain it a bit, freeze it, and thereby kill the Pike. Mayor was all for it). The other message is that we rely on Fed, State, and private sector expertise. Parks plan recently amended to include natural resources component, and we can include an invasive species component to this natural resource section.

## Questions

Diane – Anchorage has a small town feel. What would you see as a pathway that would give you the most trouble w/ respect to invasive species.

Response – Airport, soles of shoes, suitcases, and I'm looking to you to help with educating people with respect to the tourism sector. How would you get around birds transporting invasives from other parts of the world. In addition, ballast in the ports may be a problem. We've got a lot going on.

Bob McMahon – How did you get Pike out here??

Response – It is native to other areas of our state, but not south central Alaska. Maybe introduction from a fisherman for good fishing.

Marilyn – Followup to the answer for Diane. It's not what is being shipped. It's someone who sees a cool plant they want in their yard. Some is intentional and some is unintentional.

Jerry – Early detection/rapid response (EDRR). It was mentioned the European starling and European birk cherry. Many of our invasive species don't appear to be invasive at first. Arundo donax was here for 100 year before it was a problem species. It's the same story as the European starling. The gov't response was to "study it". Lag time needs to be addressed and this would help with EDRR. When you remove the invasives, you should replace them with native species. We need EDRR and while you are studying the invasives encourage their removal.

## Person 2 – Tim - (speaking on behalf of Hans Neidig)-

I am not Hans Neidig, but I am talking on his behalf. I am going over what we are doing and not doing with some statistics. There's 365 acres in the State. California is 100 million acres. There are 200 million acres in Alaska owned by the fed govt. When it comes down to land mgt issues, e.g. invasives, we are a big player in the solutions and problem as well. Alaska has a huge coastline. Transportation is an issue. My background is an engineer, so I've worked on invasives on multiple issues. The transportation issue is good and bad we have 95% of the roads of New Hampshire (not a lot of roads). We call them roads, here, unfortunately the roads aren't in good shape and a lot is hauled over them. The good news is that we have a chance to know what is a disturbed area and know where it's happening. Some of it has, has not been impacted, and we are working on prevention. We are dealing with best mgt practices (BMPs) and think that is the way to go. We have several airports and seabases, more than the norm. Weed free to one person isn't weed free to someone else. You need to have weed free vehicles come in. Send them home at the gate if they have weeds to prevent invasives. As an agency, this is one thing we are working on. Prevention doesn't come easily. The slug probably came in on a barge. In anchorage, there is only one way south and one way north. Gravel is being barged all over the state, and gravel as we see stream and coastal stabilizations, we have more and more potential for disturbance. Let's get a handle of

this before it goes out of control. Stop the spread and fight the ones we know about. Welcome to the State.

Questions for Tim

Question: Are there any plans that would certify things as “weed free”.

Answer – we are working with a team, but as far as I know, we are just starting on that path. We need to do this.

Gary: North American Weed Association already has standards for “weed free” gravel and mulch. The standards and programs are there. Unfortunately Alaska doesn’t have a certifying agency.

Answer – we need to get there.

Bob McMahon – do they mind gravel in the riverbeds?

Answer – Yes, it’s not just plants, and yes it’s a renewable source of gravel off the glaciers. It’s very commonly done, and that’s why getting the gravel weed free is so important.

Bob – You are potentially moving animals and protozoa as well.

Answer – Yes. Whatever is in there is dumped on shore, so this issue is very important. Good gravel is hard to come by.

Jerry Jackson – do you have educational programs set up for people who see changes?

Answer – I don’t know how coordinated it is, but there are educational components out there. They are concentrated on species rather than plant materials at this time. I don’t know of a central clearing house.

Janet – Are you budgets growing along w/ the invasive species problem?

Answer – not particularly. We are trying to write our contracts with bmps so that someone puts a dollar value on it and we get money. We are using reverse attrition to get the money piece by piece instead of one big pot of money.

Person 3 – Deputy Commissioner of Alaska dept of Fish and Game

I’m not an invasive species expert or fisheries biologist. I’d like to respond to the question regarding gravel. Gravel is not part of the mineral estate. We have some strong protection for anadromous waterbodies. I don’t believe there was a gravel removal permit issued for anadromous waterbodies, and most around are anadromous and are not permitted.

Our DFG resources. Fish and Game is the driving institution for statehood. 40% of adults under 60 pay for fishing licenses. Our fisheries provide more than ½ of the fish in the US. Fish and game bring in money and jobs and have over a billion dollar impact on our economy. In rural areas, fishing and hunting are a way of life. Most people subsist on moose, caribou, and salmon. Marine mammals are an abundant species. Whaling and

hunting for seals are important to the communities along the west coast. Wildlife viewing is a big draw in Alaska. It relates to 40,000 jobs. There was a question about birds as vectors for invasives, and we have millions of lakes where birds breed. Many of these have wide distributions. We have birds that go all the way of New Zealand and go to the Asian Coast as well. I wanted to tell you about some of the things you may want to visit. Powder Marsh is south of town. It's a water fowl refuge. There are eagles there as well. Homer has the shorebird festival in May, and the birds are still there. Take a day trip on one of the ships from Seward to the fjords national park – I'd recommend the 6hr trip.

Questions:

Male – talks about a bird in Hawaii that pecks on his door.

Male – What are we doing for coastline invasives – the biggest is a rat control program, there's a rat management plan, and a rat eradication program. The rats were introduced by vessels a couple hundred years ago. We do have rat free ports that have strict vessel rules. Rats prey on birds, and that's why they like the Aleutians.

Earl – If someone was taking gravel, they are doing it w/out a permit. What happens if they do remove gravel w/out a permit.

Answer: They can be fined \$5,000 or more.

Politician –

About local groups – we have a bill that will address local groups. Alaska is isolated and cold, but that does not mean that what you bring will die. We do have a problem with invasives. We are happy you are here.

Questions

Peter: Regarding the bill you are working on, did you use others as a model, or are you ahead of other states?

Answer: We came up with it on our own. We tried to steal some from the best. This is hopefully a group that will be a clearinghouse.

Female: NRCS funding used?

Answer: Local funding but we would like to get NRCS funding. It would've taken millions to do what I wanted to do, but we have realities. I went for the reality.

Female: Did you look into ongoing funding mechanism like a fee.

Answer: No, but I'm glad to have what we've got. We want to expand the passion to the citizens. We are in the infancy and we have support for general funds in the future.

Male: Can you use some of the money from the oil industry?

Answer: This year we have more money b/c of the oil industry, and we are hesitant to install programs b/c our production is waning, and we are looking at a budget deficit in the fairly near future. Yes there is an opportunity, but the window is temporary. Maybe we can put money into a conservation pot of money that will collect interest. It has been thought about.

Male: The future EDRR and education is tied to State councils. A little money now prevents a lot of money in the future.

Answer: we need to negotiate with the federal government. Fed, state and private partnerships are so important to us. Nobody can do it by themselves unless we have a clearing house with everyone working together also including municipalities. We need a partnership. We have taken the first step.

### **NISC Response to ISAC Recommendations**

Lori – I will go quickly – just to update everyone, we are trying to go back to look at the resolutions (not today but we will at the next meeting). Look at your folders for more detail. In the interest of time, I will refer to recommendations rather than read them all.

1<sup>st</sup> recommendation was to get an update on Q37 the screening mechanism for plants for planting. This should be brought up at mtg in D.C. I have a short update from USDA, come talk to me about it at the break.

2<sup>nd</sup> – USDA and NRCS – 27 plant material centers – get this information. Tab 2 provides detail – needs assessment report. This will cost 1.1 million dollars.

3<sup>rd</sup> – NISC Exec Order – staff routinely provide input on federal invasive activities and ISAC white paper activities. See page 11 of their report. NISC considers this an ongoing item.

4<sup>th</sup> – funding for tribes and tribal organizations should be considered. We ask appropriate agencies to consider this. USDA addresses this in their report as well.

5<sup>th</sup> – Invite DOE to join NISC surrounding the use of invasive plants as biofuels. NISC staff has talked to dept of energy. We thought it would be good to have some context w/ DOE staff and educate them what NISC does before the formal request.

6<sup>th</sup> – USDA reopen its new pest advisory group to look at a potentially invasive ant. This was reopened successfully, see page 12 of the report for details (tab 9 last document is where the report is located). The ant will be studied more to develop a policy on ants. We are making progress and want to continue reporting on this.

7<sup>th</sup> – NISC members asked to give high priority for gaps and give status report at this mtg. It's not available at this meeting, but we are working on this issue. We are working on the analysis. Lacey act is being looked at. Senator Nelson from Florida is concerned with the Burmese python.

8<sup>th</sup> – NISC would like agencies to adopt a policy that invasive species should not be planted to be a source of biofuels. USDA has provided info on its agency positions. Mission depends on an agency, and so this is an area we will need to continue to work.

9<sup>th</sup> – NISC encouraging agencies to use latin names when naming species.

10<sup>th</sup> – Recommend to EPA should support research for climate change and its effects on invasive species. WE have been talking to EPA. Ongoing.

11<sup>th</sup> – I already talked about this one in my staff report, and will discuss at the communication subcommittee mtg.

12<sup>th</sup> - There will be links to information in development of web-site.

13<sup>th</sup> – we are making progress.

14<sup>th</sup> – make a profile of information from agencies to put info on the web-site. Info is relevant and up to date. NASA report is in the ISAC books. They did this on their own.

Questions:

Male – under 11 concerning recommendation to EPA regarding climate change science program, there was mention of DOE to attend, and the Dept of climate change research priority funding areas is affect of climate change on terrestrial species. Likely place for invasive species program.

Lori – Please send me that information.

Male – I can give you a web-site.

Male – Regarding biofuels, there's a possibility of using invasives for biofuels will result in changing the view on whether or not it is invasive after all.

Lori – This is a risk to be evaluated. We will get your thoughts on this.

John Peter – USDA Report 13 contains a suggested change of wording. We should have a bifuel talk and discuss this suggested change.

### **Presentation – AFWA's Invasive Species Committee**

John Kennedy is making this presentation:

I want to recommend collaborative actions (won't require formal approvals), and I will end with a request for some assistance. AFWA was founded in 1952 and addresses fish and wildlife issues. AFWA is involved in key legislation. I am hoping that ISAC will see additional collaboration with respect to AFWA as well as state fish and wildlife agencies. In that regard, at the more local association level, 4 are listed in your paperwork. Cross-jurisdictional and north American considerations – invasive species know no boundaries, so it's not just local and national levels that should be considered. Invasive species committee is a young committee. It's 4-5 years old. For the first couple of years, it was very disorganized. It has since gotten productive and organized. The purpose of the invasive species committee is to take the lead role in invasive species committees. Invasive species legislation is key. Some priorities include action. WE need action. What are we going to do when we leave. I don't want to have another meeting to have an update. When we meet, we should decide what we are going to do, and we can receive updates via email. Cooperative work with ISAC. NISC is one of our highest priorities. We were requested by 15 different state directors to put together a document that can be distributed throughout the US when we get bombarded with

legislation. I told state legislation that should be easy. 3 years have passed, and we haven't been able to put together a document to tell legislation what we want. We talk a lot, but when it comes to a simple document, I didn't get hardly any responses from state agencies. One of the purposes of the discussion – I am passing this around for endorsement, but it's not ready. So, instead I'm asking this committee to help me put it together. Marketing is becoming critical. One of the recommendations to communications/collaboration subcommittee – move a national invasive species program forward. Terrestrial invasive species plants should be addressed as well. State wildlife action plans are a priority in our committee. WE can use this to engage state fish and wildlife agencies. Partnerships and consistent messages are what we are all about at the association. Hunters and Anglers say invasive species are a problem- engage them through the state fish and wildlife programs. These hunters and anglers are paying me to be here today. Goals and strategies – comprehensive legislation is a priority and I'm looking to you for assistance. General recommendations from our committee – move forward on common priorities. Spend little time on what we disagree on, let's find common priorities and get something done. Public first before congress is a priority. Partnerships are critical. Meaningful = timely, with a common priority, and an action item. [he proceeds to summarize what he just said]. Requested actions: 1. Help from fellow members of the committee on important elements of invasive species. I'll hand it out for you to fill out and give back to me before you leave. 2. Wildlife action plans discussed with NISC and Lori – we had an idea of going through all wildlife action plans and excerpting all invasive species components to provide. 3. The National invasive species awareness campaign. 4. Invasive species web-resources – we would like to collaborate on that as well.

Questions:

Male – I think it's fine that you circulate it for comment, it becomes public, are you ok with that?

Answer – I am ok with that.

Male – Good start on the invasive committee. You talked about legislative, communication mgt funding, and priorities. A priority that I didn't see was a policy or code of ethics among state agencies to achieve the common goals.

Answer – Traditional funding sources is a possibility. Let's tell the public in general not to spread invasive species for whatever your mission is. This committee is fairly new and we are now getting that vision and thought process that I agree with out on the table.

Male – John, one of the things I ran into in Main in passing invasive aquatic plant legislation. The state has come on board with us. In Main, the coordination amongst other associations in Main (e.g. trout unlimited gets it, but the bass federation was at odds – two sportsman groups undermined) has had problems. We see these problems a lot.

Answer – I don't know what response to give you. Perhaps they are focusing on what they disagree on rather than what they do agree on.

Earl – When you have state wildlife action plan, are you also interested in aquatic nuisance management plans? If you are, we can get you that information, and there will be common ground.

Answer – you are right. Good idea to bring that together if we can. We are not doing that right now.

Male – in some of the sportsman organizations, we have some of the projects that have disagreements with respect to plant management. Texas and the Midwest disagree.

Answer – Maybe Texas should be represented on the invasive species committee [laughter].

Diane Cooper – I can't believe there's disagreement with any of this. I know that we had started some time ago talking about finding common ground and how it's based in terminology and trying to reconcile the disagreements with terminology. One of these things was a white paper on definitions. Consider handing out the white paper to use as a platform for discussions with interest groups.

Answer – In our last meeting I said I would do that, and I did. I don't know if it filtered down from the state directors.

Jennifer Balmer – Comment towards state action plans and identifying invasive species actions. A number of the states discussed successes that had a component of invasive species control. It's just never represented as controlling the invasive species. It's more protecting the native habitat for the fish. You are doing a good job.

Answer – State wildlife action plans have specific terrestrial/aquatic plans.

Gordon Brown – (1) The web-opportunities (2) vegetation (3) funding. Do I go to the apple website to find linkages to the state action plan?

Answer – you can

Gordon - I will, and I want to make sure that NISC has this link on its website as well. FAQ pages should be linked to NISC page as well. I'm all about links b/c if you have the link to the ANS state mgt plans and state wildlife action plans, we can have nuisance species funded in a way to get funding. You're all about getting funding to states that have finished aquatic nuisance species plans. Why not be ready to have a direct connection to aquatic species connection but team wildlife has funding on its own. It's a great doubling opportunity. The next thing is vegetation mgt. We tend to categorize agencies and committees. Veg management is crucial aspect. Terrestrial surroundings are important as well to fish and wildlife resources. We need to get to know the state Ag departments. If you have too many weeds, it affects health of fish and the ability to hunt for them. Finally, if we focus on restoration or habitat improvement as a goal, it gives u a chance to get involved with groups making decisions regarding different expertises that link to funds that can address invasive species. Restoration might be one of those ways to get people involved in the future.

Answer – The Association is asking the same of this committee.

Male – Tie vegetation and animal management together. Don Maclain is a key person involved in this.

Chair – This sounds like a task with a producible product at the end. Sometimes things need to be done face to face in order to get results that you want.

John – I am ready to deal with these issues outside of this committee, but I also didn't come here to get assignments. I don't want a bunch of ideas with things to do when I go home. I want to give the committee, here at this meeting, assignments.

Female – You want action here. Procedurally, what do you want from us?

John – I want to make specific recommendations. I am not prepared to do that. I would like to work these issues through the subcommittee members. Is that not an appropriate avenue? I will go through the members forum, and I make a motion to go through the issues I brought up for consideration.

### MEMBERS FORUM:

Chippy – This is for members of my class at the last mtg. I want to go back to something we talked about in Yellowstone. I think we lost some traction on economic data and the generation of meaningful economic data to the average American. (e.g. the billion dollars it costs us to deal with invasive species). If we can get the Ag resource services to fund non-commodity invasive species studies and get it to the point that we can drill down the information to meaningful numbers (e.g. average electricity per month for the average American as a result of zebra mussel invasion). We need something simple and to the point.

Chair – e.g. how many pieces of candy is this invasion costing your child?

John – If we work on a single-focused nationwide marketing strategy on invasive species, is that an appropriate subcommittee project. If it is, I would move that the ISAC subcommittee address this. Based on this, I will not make a motion on the rest of the items.

Chair – does everyone understand the motion?

Ann – You're saying that we will make a single-focused nationwide strategy.

Chair – The move is - the organization/collaboration/education/outreach subcommittee develop or review on national marketing strategy on a single-focused nationwide marketing strategy on invasive species.

Male – marketing is aggressive and awareness is passive – put it out there.

Chair – we have a motion on the floor, all in favor say Aye, and nobody opposed.  
Motion carried.

Tim Carlson – first I'm going to pass out info on a concept I'm starting to work on. There should be a few extra copies for the public as well. In Colorado, the legislature has a restoration act that provides matching grants for restoration purposes along riparian corridor in Colorado. It's \$1million. They passed it without any discussion or education b/c they already knew about it and were ready to act. It's on the govts desk right now. The other interesting thing is that it includes monitoring which is unique and good. I am passing this other thing out and I would like your opinion outside of ISAC. There's a lot of oil and gas exploration funds. As a result, there's a lot of extraction of natural resources. This is similar to the highway trust fund passed in the '50s. During the Eisenhower administration, this highway trust fund passed and went towards funding highways. We are working on something like this for natural resources. What this is, is looking at a big pot of money out there, not necessarily just invasives – b/c if it's tightly focused, we may not get the pot of money. However, invasives fall under the natural resources pot of money. So, if we can use the money from the oil/gas exploration funds that extract natural resources, we are working on getting this money in a trust fund

similar to the highway trust fund in the '50s to address natural resource issues. I'm bringing it up to talk about. We are an organization of 4 people, so this is for your information.

Ann – 1. One of my recent issues is politics and grower needs and international trade can enter a confusing issue when dealing w/ an invasive species. The potato industry is having issues with the potato cyst nematode, found in Idaho a couple years ago, found in New Foundland, and Canada. This pest stays in the soil for 30-50 years. This pest has been found in Alberta and has had an impact on the two countries. We have been having problems figuring out how to get potatoes from one side of the border to the other side of the border. It's difficult to tell an industry we need to take on and deal w/ this sort of problem, survey, and it'll be for your own good. They are concerned that if we find the pest, they will lose their livelihood. Another thing is the states change, so it's a moving target, it gets expensive to do these surveys and it's complicated. Here's an example of the real world issues with respect to invasives. USDA now has funding to pay for these particular surveys. \$200k for one year of surveying for this pest. This industry may end up with a requirement to do this survey, and at that point they fear they will have to pay for it. Trade can get pretty tricky. 2. The other issue is biofuels. There is more interest in high oil seed crops, and a number of those are fairly invasive species. My understanding is that some of these crops have been approved for food consumption as well because of the oil push. 3. Forest pests and pathways (emerald ash and longhorn beetle) is firewood. This is an issue in my region, in the Northeast. We have been getting collaboration with the agencies with firewood issue (agencies and campground workers), etc.

Chair – we have a members forum each day. When we pick up w/ the members forum we'll start w/ Celia. We have a working lunch, and we have enough lunch for everyone. Grab your lunch, sit at your table, and we'll start the presentation at 12:20.

### **Working Lunch Presentation:**

#### **Invasive Species Collaboration in Alaska**

I want to talk specifically of our EDRR opportunity. Some invasives are spreading rapidly, but the state is still fairly pristine. Alaska is perhaps our last chance and most promising chance to address the invasive challenge from the front end of things. We will need to devote resources up front to prevention and early detection. Scott Broom plants are present in a few locations, as noted on the map, but they are two individual plants. Are there any knapweed fans? This is present in patches, so we have an amazing opportunity to catch and eradicate them before they spread. So, this is a glass half full presentation. We can eradicate.

Our biggest overarching accomplishment is our successful collaboration (state, fed, municipalities, NGOs, nature conservancy, Snip 'em – state weed committee, etc.). There is now a girls scout badge that is awarded to girl scouts who learn about invasive species. [she proceeds to introduce people]. The reason I introduce these folks is bc we are going to try and be here as much as possible during the next days. Being Alaskan, we are eccentric but friendly and approachable.

Coordination – Snip ‘em facilitates statewide teleconference. We are able to connect them to talk about projects, ask questions, and get answers. There’s a list serve. The last week in June is a recognized “week” that deals with invasive species. It may turn international b/c now Canada is doing this as well.

We have several publications for the education/outreach information. We have a huge organization statewide, websites, etc. If you go to [snipem.org](http://snipem.org), you can get a lot of this education information. Univ of Alaska Co-op extension – we do workshops to teach taxonomy and how to id invasives.

Political awareness in Alaska – the briefing paper is in your packets, and work w/ the Alaska legislature at this point is the state’s shortest bill, and that is in your packet as well. We finally have a state weed coordinator, develop a plant plan, and will assist w/ information to update laws.

Inventory and monitoring – the statewide database with plants in it. It’s all available online. There are maps in your packet, and there are research projects going on. Jeff Kahn will be talking about that tomorrow morning. There is a weed ranking. So, USGS, forest serves, national park service, etc. worked 3 years to develop a weed ranking of 100 species that include biographies and risk assessments. Matt Carlson will be talking about some of our species of concern on Thursday morning at the field trip. Do we have weed free certification? No, but we have a hay program.

Challenges are as follows:

Rose said there are some basic challenges to our situation. A couple of them (1) a lot of transportation (2) limited inspections (3) not many herbicides that are usable. Invasive plants may not impact corn or cattle, but invasives can impact our salmon fishing industry and subsistence for rural households. Government response is slow to change. This is a bit of a challenge. For example, EPMTs related to our issues are budgeted \$160k, where the other groups get \$300k. There are 5 strike teams to address, and none of the strike teams work in Alaska, where EDRR is so critical. National Bureau of Land Management budget is \$7billion for response – for Alaska, \$38,000.

How can we qualify for Federal funds to do EDRR if our invasives are not listed on the federal list? To make a point – I finally got some funding to fund some scout time on the ground to look for Blue stripe and Elerian Thistle, to look for Blue Stripe, but the Blue Stripe isn’t on the list. We really need a really good state weed coordinator, but we don’t really pay well. If interested in living in Alaska to do this, this is available.

Welcome to Alaska [poetic quote from a book about rainbow campfires, etc.].

Concrete suggestions – brain child came up with national level initiative that we were going to ask ISAC to champion. We will discuss this in the next presentation.

Not all tribal associations are involved with invasive species.

## Questions/comments

John Peter – Lower 48 – I've heard that it's too late for the Lower 48 b/c it has escaped. John is saying that you have a chance, but that the lower 48 doesn't have a chance. Should we prepare a "Resolution action plan letter strongly recommending Alaska be addressed as a good opportunity"

Ann – I think that is a wonderful idea, and I think this would work for Guam as well.

Male – If public sees scotch broom, is it ok for them to cut down the Scotch broom?

Male – We've been working on that w/ National Parks. WE are working on a certification program, so if a public person with the certification it would be ok to remove the scotch broom from public lands. However, right now, not enough people are interested in the certification program.

Ann – We also have a pocket guide that we hand out.

Miles – the allocation of funding is consistent with any policy I've seen. I share the frustration of the static priority lists. Maybe some guidance to funding organizations that instead of having static lists that don't change, that you justify why these are EDRR for your region/circumstance, so you don't have to constantly be updating lists. For example, our list had 3 species on there, and it hasn't been updated since the 1950s.

Ann – you heard about the concern w/ the use of herbicides. 3 years ago, we hand pulled in October, we hand pulled 3 more times. The density is reduced of this particular invasive, however, we haven't been able to eradicate due to no use of herbicide and the herbicide concern. There is a public sentiment that is anti-herbicide. Once you have the support of the general public, that the weeds themselves are a form of pollution, then this is critical.

Question – why hasn't the governer signed the bill that you referred to?

Ann – I don't know.

Female – the session just ended and there's a slew of bills that the governer has. I wouldn't think it's an issue until it gets in front of the governor.

Bill – In Texas, when it came to people who were anti-chemical, with one particular herbicide, we told the group to go pull it out, we won't spray. They worked on it for half the day and then they said to go ahead and spray it.

Ann – With the extension program and we do classes, they tend to understand examples like use a little herbicide now and you can avoid large scale herbicide applications.

Diane Cooper - Question on educating native elders. We work in the rural areas farming shellfish. We don't need to educate them, they come to us, and they know more than we do about what is new.

Ann – in Alaska, sometimes we'll speak about the issue, and then folks will approach you after the session, but I think this may be an invasive ...etc. and yes, they are an amazing resource.

Michelle's presentation on Alaska:

We do have a list (listed on slide). We also have things on the list that aren't yet found in Alaska. Green crab and tunakits as well as ballast water are key issues. I think our lawmakers haven't realized how key it is. Regarding mammals, we have had a fox eradication program from the Aleutians for a long time. This is an invasive species that was brought in for pelts in the fur industry. They kill sea-birds that eat ground dwelling seabirds. We also have a big rat eradication program. Some things done included air dropped pesticides from airplanes, and it's having good results and we are saving seabirds. We have European species of insects that are coming in. In the interior, we have 6 native trees. You get an insect that devastates thousands of acres of that species. What do you think about that? 200,000 acres of a native tree got killed from a species of invasive insect. Another species is a gypsy moth. We do have some pathogens on mammals and on agricultural crops.

EDRR – positive example – farmer was joyriding and he saw a part of his field wilting away, called the proper authorities, they checked it out, he got a permit, and they were able to contain it, and get rid of it within a year. This was EDRR with positive results. They think it came in on tomato seedlings.

Initiatives that we would like help with –

setting priorities: 1. Alaska – our situation is different. We are the only state that is in prevention mode, and we are geographically isolated, so EDRR is ideal. 2. WE aren't funded b/c we don't need millions of dollars for emergency problems, but if we can take care of it on the front end, then we won't need millions. 3. Snip'Em is so successful b/c of national speakers e.g. Dave from Idaho, Jennifer spoke on herbicides, and more experts. We have Dave Whatenburger to help us get organized with a strategic plan. We need to encourage national experts and agencies to come to Alaska. 4. NEPA documents for weed control in Alaska are important. Forest Service and BLM has one – what about just having one for federal agencies? Can we do this for Alaska? Economics of prevention – Last time I looked into this, I never really saw any good data. If there is someone who has this information, we would love to get this information b/c we are in prevention mode and we don't have this info. Fund Alaska's prevention levels at similar levels of other states reaction levels. Come back and ask for money when you need millions of dollars. Do we have any clout? Not yet. WE need this group's assistance to help the state of Alaska. This next initiative is my platform, how do we keep everyone talking to keep synergy happening. Outstanding weed research is the last one. I am excited b/c I work w/ farmers and NRCS and was doing pest mgt with the farmers. Someone recommended ¼ recommended dose? NRCS wouldn't approve it b/c of plant resistance to this herbicide, I looked for research, and then I found it presented it, and finally NRCS approved it. How are NRCS staff going to make decisions about herbicides if they don't have research? We want money for research that results in basic

data. Herbicides in Alaska do not act the same here (e.g. Roundup takes 4 times longer to break down in Alaska. This is why the public is afraid of herbicides). Bottom line – Alaska cannot do this alone. Can we use Alaska as the “prevention model”?

Questions:

Jerry Jackson – you are fighting one of the biggest threats to mankind in Alaska. Can you help us out regarding to efforts of possible invasion of avian flu from Asian flu. That is certainly an invasive species threat.

Ann – The Alaska Dept of conservation, dept of health, and the university is involved as well. WE have educational materials and a web-site, and it has been on tv. We have had a monitoring program as well.

Female – Several agencies are working on this.

Ann – I don’t think we found any birds yet in the state with the avian flu. Of course, Alaska being so close to china and with migrating birds, this is a concern.

Male – Is it possible to build in specific funding for Alaska?

Male – I think as we have discussed it, a portion of the funding would have to be fairly formulaic, and the rest of it competitive to take care of infestations where they occur. It is reasonable to build that type of thing into a structure.

Skip – Great presentation. I hope you stick around and have informal conversations w/ ISAC members in the evenings as well. We have flown all over the country, if you are expecting the feds to run to you w/ money, don’t hold your breath. I’ve asked for years if they will consider preventions as a measure of success, and I haven’t yet gotten an answer. In the grand scheme, we have a war in Iraq that is sucking us dry.

Ann – Money is always an issue, but if we can begin to bring awareness to the feds this will help. We have been able to do a lot on a shoestring.

Female – for every tax payer dollar, 1/3 to Alaska, 1/3 to Indiana, and 1/3 to the US treasury. At this point in time, the money is going elsewhere. I think prevention is a sellable b/c they understand that it’s cheaper.

Chair – I don’t think ARS as constrained as you think they are. We need to move on w/ our next presentation by David Britton.

### **Presentation – 100<sup>th</sup> Meridian Initiative in Alaska and the Western United States**

David Britton

I work for USFWS, I’m the assistant aquatic invasives species coordinator. A lot of my job involves working w/ the 100<sup>th</sup> Meridian initiative including boater surveys since 1998. Zebra mussels are nasty and are a main focus, but from the get-go the 100<sup>th</sup> Meridian (Oklahoma, texas, Nebraska, etc.) wants to address other aquatic nuisance species. A line drawn in the sand along the 100<sup>th</sup> meridian to prevent invasives from the

east and west from spreading across this boundary. Our primary focus has been on trailer boats. This is a picture in Texas of a pleasure craft. Someone takes the boat, trailer, and or waterski, then they take it out of the lake. Zebra mussels might get on the anchor, and if they go to the other waterbodies in traveling, they can spread this in other water bodies. These Zebra mussels can survive 2 weeks outside of water and is a problem if recreators aren't cleaning their boats. Planktonic larvae is a concern as well.

The goals are to prevent species from spreading from east to west and vice versa using 7 components.

1. information/education: we get the word out to anyone who will listen regarding behaving responsibly w/ boats (e.g. washing your boat so you don't infest waterbodies). Some agree, some fight it. The more they understand, the better.
2. voluntary boat inspections/boater surveys: looking at boats to see if they have aquatic weeds or ANS attached. We conduct boater surveys where they take their boats while we are out there so we can see waterbody linkages – which ones are more at risk than others?
3. Last week, I talked to a commercial hauler, it's not his problem. He hauls houseboats – even if he's hauling a houseboat that is full of cocaine and illegal immigrants, he's not liable b/c it's not his boat. So, commercial haulers are reluctant, and it's just another thing to think about on top of expensive fuel. This is an uphill battle.
4. I'll do 4 and 5 together quickly and then cover 6 and 7-

Monitoring and EDRR - By the time you find zebra mussels, it's almost inevitable that they're well established, and the best thing you can do is contain them in the water body. We are working on new monitoring techniques. DNA techniques to look at plankton samples to see if zebra mussel components are found in the plankton. We don't know how often that zebra mussels are introduced into an area and don't survive. This is possible, but we are finding out by improving monitoring and rapid response efforts. Boater surveys- utility of boater surveys – and how we can expand this to areas in the west including Alaska. As far as boater surveys go, this does a lot of good. A student interviews a boater about where he takes his boat, where else has he been, we are getting info on how the boats move and we have the opportunity to talk about myths that may be going on in the boating communities and we can clarify that at the time. If they don't know there's a problem, they won't do anything. It's a slow process, but it's more effective. The biggie is that we get info regarding moving from one waterbody to another. Kayaks can entangle weeds that have zebras in them as well. We try to reach anyone who has anything that floats in the water. We did, however, focus on boaters that travel frequently from waterbody to another. What we did not focus on that we should have – e.g. houseboats. Lake Michigan to lake mead travel happens in just a few days. We've been in contact w/ Marina operators regarding the problem. Survey information, we ask for zip code of where they store the boat/where they live, their awareness of ANS, where else they take their boat besides right now (where they've been and where they are going). I am stationed and University of Texas, Arlington as well as USFWS. Kansas and North Dakota are leading the way with their surveys. Utah and Arizona hasn't provided us with boater

surveys yet. Hopefully we'll get this information this year. Do you have trailer boats in Hawaii? You never know what they're going to bring. So far I haven't received any surveys from Alaska, so hopefully we can get this information/cooperation among all interested parties so that any transported ANS in the US can be tracked. Lets say we survey a boater at lake fort, texas. He tells us he goes to lake texoma, granberry, or lake oolaga near Tulsa, Oklahoma (this one is infested with zebra mussels). Oolaga had a worst zebra mussel infestation a couple years ago. Bob mcMahon can talk about this tonight over a beer. Bottom line, alllll of these lakes have a potential for zebra mussel infestation. [references a map with green dots, purple dots representing survey locations, zip codes etc.- this information is stored in a database at the university of Texas at Arlington, brown dots represent destinations up to 2002, so we need to update this map.] The blue dot in the middle represents lake powell. We did have several people who said they visited lake powell. You can see people from Nebraska, Wyoming, etc. That scares me b/c Lake Powell wasn't even a surveyed location. This one is lake mead. No surveys were done at the time, but it was difficult to convince lake mead staff to allow surveys when they didn't have a problem. On other slides, he references different dots and colors to discuss other trends regarding transatlantic ballast water spread of invasive species (Quagger mussels). In the database, we don't have any surveys that show that these boats have visited Alaska. As we get closer to Alaska, I'm sure we will get more information regarding potential vectors in Alaska. I have been trying to promote what we've been doing with the 100<sup>th</sup> meridian. We now have University of Santa Barbara, Las Vegas, Toledo, and another city as well to come up with risk assessment in several regions. We don't have Zebra mussels in the pacific northwest, but we have several surveys in Washington, Oregon, etc. yellow dots on this next slide, it addresses the pacific northwest. The question was asked from the folks in this area. Where else should we survey? This is where we have surveyed. More info = better decisions. How this could help Alaska, there are inspection stations in California after the infestation of the lower Colorado river. They are looking for at risk boats and make sure it is zebra mussel free, boat looks dirty, or it holds water, then it could be impounded. California doesn't have it all over the state. We can probably do this if we spread this 100<sup>th</sup> meridian issue out this way. The downside is we've only been focusing on boats. However, if you live here, sometimes other floating planks are used regularly. Although you don't have a lot of roads, that's not going to stop zebra mussels. This is probably going to be a problem in Alaska as well. This is something to gear up and treat them like we treat other boaters and gather movement information for the database. So, that's how we might apply it in Alaska. I'm all about prevention. With that, I'll hand it back to the chair for questions.

Female – What about our partners to the north? What is Canada doing with respect to transport research? Are they doing similar work with respect to boater surveys?

Response – we have boater surveys in Manitoba. Very few surveys from places other than Manitoba. Canada hasn't really helped that much overall. I've been trying to coordinate this with the Canadians and eastern US as well. We need to focus this

everywhere. I have plans to talk to a leader in Canada, and I think he is on board with it if we can get students out there to do it.

Chris – 1. EDRR to address invasive. It's disturbing that some people weren't aware of zebra mussels in their lakes. Could you give us an idea of the proportion of people who weren't aware? 2. After the surveys, was their information given to you from boaters regarding zebra mussel infestation.

Response – It varies regionally, but at the great lakes it was about 20% weren't even aware of zebra mussels or their impacts. In the west, that number jumps b/c we've been out there and we've been spreading the word (the media helped with the Quagga mussels in California and the effects on the Colorado River). And occasionally we will be alerted of possible invasive species.

Earl – I have a written recommendation for NISC.

Jennifer Balmer – Excellent survey that would be useful. Perhaps when you go buy an atv license, they must fill out a survey for example. With Alaska, I'm pretty sure if you're an out of state hunter, you must go with a guide.

Male – I just spoke to some people in Utah who are serious about not spreading mussels in Utah. They are requiring a barcode sticker before launching. When this barcode is scanned, it automatically goes into a database.

Male – Have you thought about other infestations as well?

Response – we haven't thought of giant salvinia specifically, if there is any sort of vegetation on the boat. You could utilize the information we have with giant salvinia as well. It hasn't been done yet, but the utility is there.

Miles – Minnesota, Wisconsin, and Michigan has a similar program and if the data is compatible with yours and if there has been coordination to get this information.

Response – Wisconsin has been helpful although they aren't part of the 100<sup>th</sup> meridian, but spreading it is good. The key is that they ask similar questions. I haven't spoken to Minnesota or Wisconsin directly but I should.

Bob McMahon – Across the US and Canada, we need a uniform survey if you aren't asking the same questions. We will request a recommendation of you to request this? [action item]

Male – do you put a sign up at lakes that have zebra mussels infestations?

Response – I wish they did.

Chair – thank you. [applauds] Tomorrow Bob will bring up the action item.

## **Presentation - Invasive Species Crosscut Budget Summary**

We'll talk about the budget and solicit your help. Background, why we're doing, it next steps, and solicit your help. The Executive Order 13112 is key. Performance measures now need to go along with the crosscut budget. It is not a magic bullet for funding.

Before I go into this slide, it's a parceling of each agencies depts. Submitting their budget plans OMB. We take parts of them in a way and combine them in ways the OMB wouldn't think of (e.g. ACOE and USFWS can each supply funding to portions).

There's general categories and specific initiatives. So, we develop the document and submit to the budget offices. AT the exact same time the budget offices are going crazy trying to get the budget submissions for OMB in a separate submittal to OMB, so buy in is key b/c we normally wouldn't want to torture them during the hardest part of the year.

After pass-back, OMB has taken crosscuts into consideration, then in February, we get a data call to findout what the actual results of the cross-cut ends up as.

General categories is an attempt to compile everything that the govt spends on 7 categories in the president's budget. What did you spend on each category? We have data since 2002. (e.g. Ag spent \$x on leadership). Here are the categories, they haven't changed, and we don't want them to change so that we can have consistent data. This slide reflects that data.

The 3 specific initiatives include species, thematic, and regional. We ideally look for things that will get attention, and be clear on the threatened resources. Action items and specific activities are considered. The one I handed out is an example of fiscal year 2006 just to give you an idea of the type of information to be included. Past thematic initiatives examples include aquatic response, etc, new small scale ideas. No regional initiatives saw the light idea. Perhaps a western initiative could be developed for Alaska?

FY 04-06 to present to OMB, and we are in fy 08. The general categories are always the same and are easy to compile, but they've been shelved for the past couple of years. We are trying to get this back on the table. When all of this started, we solicited input and had enthusiastic people at the table. The enthusiasm waned. We don't want this. We want people to see a light at the end of the tunnel.

Who is the ultimate audience that we are going to impress with this? So, we need your ideas and we want to involve nonfederal partners while realizing that this will go to OMB, consider different angles out there. We want your opinions.

Chair – tonight from 6-8 p.m., in the Aleutian hotel, at the Hilton, meet up. Chip will be buying drinks for everyone [laughter]. One other announcement is that we need to come up with a slate of acting officers (secretary, chair, and vice chair). Those of you who are interested in serving in one of those capacities, let us know. The floor is now open to questions about the cross-cut budget.

Question/Comments:

Female – we are going forward with specific initiatives with respect to the crosscut budget planning, and two things to remember when doing an fiscal year 10-12, think about what is in that plan will be helpful. Please don't limit yourself to one fiscal year. Fy 10 is kind of weird b/c we are going into a new administration.

Peg Brady (NOAA) – I have a number of ideas and questions. One is in your discussions w/ OMD, there is comments and feedback you get from them. Is there anything of value in their feedback that will help us?

Female – They want things they can track, common initiatives, and common performance measures. We don't want an emergency fix. We want something that works over time and tracking progress. They've been pretty open and don't have broadbased cross-cuts. They are pretty understanding with us that this is valuable info for them. They are pretty flexible, and we are pretty clear. They are looking to us to see what is valuable. They always want progress tracking measures and performance measures for prevention is difficult.

Peg Brady – we need to be more creative with our performance measures for prevention. Do you have different levels of performance measures? Transition report, are we planning a transition document?

Female – that would be an extremely good idea. We haven't done this yet, but your help on that would be great.

Male – OMB has said that they want to see how things work out with performance measures. They want to see how we live up to our performance measure after the funding has been used.

Male – They ask, have you seen a transition away from reactive to prevention? They don't know what to do with EDRR.

Katherine (Nature Conservancy) – For folks (muffled). In theory a crosscut budget looks across different agencies that can be used by OMB to identify where agencies are undergoing duplicative efforts. It's a conceivably useful tool to consider strategic federal funding can be made.

Male – if there's something so compelling we can sell now, we should try to jump on it. We should also keep an eye on when things settle down a bit to propose other work.

Katherine – in the past did you have an agency lead? [yes] – maybe ISAC can provide useful agency work as well as regional ideas. I'm open to other ways of capturing it too.

Lou – Would ballast water fall under thematic initiative?

Male – OMB has not seen this. The language is there to start this, though it has never quite made it to OMB.

Female – Lou, would you like to include ballast water together?

Lou – Together.

Female – We always have to get the number from the budget offices so that we don't double count the money from the agencies.

Male – what makes this a performance based crosscut budget?

Male – there are performance measures in the document we handed out. What I handed out was an example. With this initiative, we are shooting for performance measures. The experts put together a budget initiative, budget office determines a dollar amount, they can tweak performance measures based on funding. Tweak down performance measures based on funding. What we achieve depends on the amount of money.

Male – How much money is spent on wood-related pests, how much is spent on aquatic invasives?

Female – Just to be clear – you're talking about what we are already spending for the general categories. The amount spent on wood-related pests vs. aquatic invasives is something is an interesting idea, but I want to make sure that it's clear that they are separate.

Male – As far as prioritization and determining how far along we are on a goal for a specific initiative is a good idea.

Gordon – Specific initiatives have never been run as a development. We don't start soon enough to go to bureau and ask them what their need is. When people volunteer from their agency, to deal with tamarisk, it's different.

Female – This could be a recommendation – the initiative needs to represent all of the money spent on that item.

Gordon – NISC defers to the agencies to set priorities and find out from staff what they find is priorities b/c we don't presume to tell them what to do. We could do that if we have more political clout, and we aren't there yet.

Jerry Jackson – Specific initiatives:

Thematic initiative: The subject of a good deal of research that is spread across agencies = the impact of local climate change on invasive species from a modeling and biological perspective

Species specific initiative: Burmese python in the Everglades, it's a threat to human life and integrity of the everglades ecosystem b/c there are endangered

species that live in the everglades that can be wiped out by the Burmese python. There are incredible numbers of Burmese pythons. With global climate change, the potential for Burmese pythons can now extend to Washington dc.

Bob McMahon – This goes under prevention:

I'd like to see the boater survey spread throughout Alaska and the lower 48. It fits almost everything you are asking for. Federal, State, and NGO representatives are all participating. The information would be incredible if we can spread it across the US. The analysis is done by GIS, we have everything in place, we have the forms, etc. It's not something we will have to reinvent and will assist with any aquatic invasive species, not just zebra mussels.

Female –

The absence of systematics as a training tool is a problem that could be addressed in the crosscut budget. Frankly, if you go to NSF systematics panel, they are not interested in an ecological setting for systematics. That constrains the training of students who are doing the census of marine life, and there are no taxonomy experts. It's a real need from the plant point of view as well. Male - The NSF is hiring molecular people, so that is not helping the taxonomy at all

George Beck –

One of the issues we have is quantitating the effect. A truck traveling from one location to another can take seeds. Maybe hire a graduate student to go and investigate the dirt on the tires to see how many seeds of what species are transported, for example.

Ken Zimmerman –

On the themes, restoration is missing. My experience w/the tamarisk was that the effects of flycatcher if we lose tamarisk habitat. Restoration is a significant position.

Ann Gibbs –

Miles was talking about budget dollars and whether the dollars were sufficient to solve the problems.

Male –

The first presentation to OMB is the number from the agencies

Ann Gibbs –

I propose that we need 3 times the money, with the expectation that OMB will cut it significantly.

Male –

There may be a reduction before it gets to OMB from agencies. It may not be OMB.

Ann Gibbs –

I just wanted to clarify this b/c these initiatives are really not funded at the rate that the agencies really think is needed to fund these efforts.

John Peter – I was happy to hear about global climate change being an initiative, and that was followed by systematics, and I fully support that too. I was hoping to come up with a cool way to discuss both. I'd like to revisit this when we discuss tomorrow along with gaps in scientific research.

Chuck o'neil – quantifying economic impact on non-agricultural commodities. We are still not seeing these figures come through, but our constituents and state capitals and congressional delegations - why should we be interested if you can't tell us what the economic impact is? We need to take it to the next step. The info on non-agricultural commodities are not as solid as is desirable. This would be a thematic initiative we should be pushing.

Male – there are species specific issues being worked on, but nothing from a broader perspective.

Male – universities are big businesses now. When I retire, they will replace me with another molecular biologist. It's important to keep funding to faculty that relate to invasive species, otherwise, the universities will phase it out.

Female – Species specific stuff is more difficult. Any ideas that comes out I can tie to the plan.

Female – I had a couple of ideas for thematic or regional – one of them cooperative invasive species management areas. It is a growing concern that is expanding nationally. It would be interesting to quantify that to see what agencies are participating in that. Is there a way to quantify interagency information sharing. My hope would be that it would encourage more of that.

Jeff Sharp – Phil, as you're writing this down, when jerry talked to you before regarding the Burmese python, did you put that under prevention or what?

Phil – the specific initiatives are completely separate.

Male – regarding Bob's comment on surveying, can you add things in addition to the mussels?

Phil – I wrote to expand and continue the current survey and the application to other invasives.

Male – I want to shift my support to systematics. I'd like to suggest a third thematic issue. I'm suggesting it for a reason – b/c one of the needs we have is to get the public behind invasive species issues. If we can get the public's attention and leverage, that might aid the larger program. Theme: Perhaps the impact of invasive species on recreational activities could do this?

Male – on the Restoration theme, we should probably also include enhancement b/c sometimes when we build reservoirs, it tends to get filled w/ invasive species. Just restoration implies something was there and now is getting restored. However, we built a reservoir, we should take the same care to create a proper habitat for these reservoirs as well as prevent invasives from entering these reservoirs that weren't there in the first place. Specific species – Giant Salvinia suggested. It's colonizing thousands of acres in Louisiana and Texas. Armored catfish are a problem in the bayous as well. Nothing wants to eat them, they cause bank erosion, and they outcompete the native species there. They have overrun Mexico as well and can get into the mountains. They can live virtually anywhere in the US. Maybe the stores should take them back if people don't want them anymore. Arundo Donax (30 foot grass- reed like) is another specific species to focus on is important. It is going to be a big problem in the Southwest b/c they are short on water and Arundo Donax uses a lot of water. This Arundo also impedes border control.

Celia – Following up on Bob's thought on the importance of systematics. There's not a lot of money available for identifying. There are no jobs for this work, so positions need to be funded to encourage people to pursue these careers.

Chip – Not sexy, but could use more funding – the thematic initiative, unless we can have the public understand why this is important, then we won't get the funding. We may need a charismatic icon to move it forward.

Katherine- two questions – can you speak to the criteria for thematic initiatives? The specific ones seem to be based on a popularity contest.

Female – they were all a bit of a popularity contest. Thematics we tried to keep it very close to what was listed in the management plan, although items closely related to the items listed in the management plan were also considered.

Katherine - What good has come of being a theme in the crosscut budget?

Female – the best example of a theme in the crosscut budget was EDRR. Ballast water didn't do as well.

Chair – shall we skip the public comment section and continue with this?

Trish Woods (USFS) – located in Fairbanks. I am the invasive species coordinator. I'd like to propose another initiative. Alaska rapid response initiative. We have 10 species present here in small amounts, and there is no will to nail them while we can still nail them. Let's show we can stop some species early on.

Gino – I agree that this would be very important for Alaska b/c of the pest list that have been dropped.

Chuck – How to measure prevention – A lot of times you know what the rate of introduction is over time. E.g. 1968-present we have 20% more invasive species than in 1968. We can look at that curve over time.

Male - ISAC recommendations that coincide with the items on their lists may make it more likely to happen.

Male – climate change and invasive species can certainly go together.

Male – Alarming is that different agencies contribute different dollars, and some major agencies were small contributors. We should note this.

Bob McMahon – There's an issue that crosses between region and species. Zebra mussels in reservoir just below San Francisco. Quagga mussels are all over California. This is going to be at least a 3-4 year issue. We will need money and effort to prevent them from getting into the Columbia River. NGOs are interested this.

Chuck – when I think of thematic, I think of a macro view of it. If anyone has seen funding, and we're looking at a cross-cut budget, we need to look broader on the broader scale like on the broad economic scale. A lot of dates/numbers are agricultural numbers, we need to see real work and quantify the impacts. We need a lot more and we need more of a coordinated effort.

Ann Gibbs – I totally agree with you. The forest service has money and they've been begging people to do the studies, and they often don't have folks applying. Some people are afraid to figure out how to do it.

Tim Carlson – the recommendation regarding Tricia's response regarding the crosscut budget with respect to Alaska. It's similar to a recommendation we made a year ago that a couple agencies put money into solve a problem, and I think we should do this with these 10 species in Alaska.

Male – this is a no-brainer, can we make this recommendation? I will follow it up later. [everyone seems to agree].

Female – if we don't make EDRR an initiative again, do you think the initiative will go away? Do we need to tout it again? I would like to see more utilization of GIS information for management.

Earl Chilton – I wanted to ask you, in terms of trying to justify some of these initiatives, funding eradication of invasive species seems to depend on Ag, energy, water availability, and of course prevention. What do you think are the arguments that the agencies are going to listen to the most?

Male – right now, something that screams from a couple of levels. If anything is going to get traction, I would recommend something small, focused, and a big deal to a lot of

people. When things are more settled these other ideas should be addressed, but if anything is going to go forward, this is what we need to do.

Female – Packaging is important.

Male – if you need to make a monster out of any of these, I'm sure Jeff and I have scary images for you to use.

Jeff- I'd like to propose something more specific including education at the high school level.

Male – as far as a regional initiative, why not use Alaska.

John Peter – what we spent time talking about was valuation of ecosystems. Why are invasive species a problem ultimately, directly effect us, but how do we quantify this effect? On the other hand, is a kernel of opportunity for marketing. The public does understand clean water and fresh air and drop scientific terms as well as free services as a result of this. There is probably an educational way to bring much of what we just talked about into a comprehensive presentation. Who is responsible for educating the public? The government? I've just been told its Cooperative Extension.

Male – One more suggestion for initiative to throw into the pot. Assuming the highest likelihood of funding goes to specific items in the National mgt plan for invasive species, it may be good to address the most concrete item listed I the mgt plan, which I thought was P.2.1

Miles – I was thinking along the same lines.

Female – Thank you everybody.

**Public Comment – it was decided to skip this section so that the crosscut budget initiatives above could be an extended discussion.**

### **Review of Day 1 Action Items**

Mr. Chairman I am glad to re-cap. We don't have a lot of action items

1<sup>st</sup> – is resolution thanking the governor and legislature. This is without question an action item. Please note the governor hasn't officially signed it yet. I want to recognize her, but she hasn't actually acted yet. Let's have this an action item contingent on the governor actually signing. ISAC recommends once it is signed, a letter will be written thanking the governor and legislature. Nobody objects to this action item.

2<sup>nd</sup> – from Mr. John Kennedy has to do with Federation of Wildlife Federation. Refer to the "cc-ceoc" committee (communication committee with education). We have a request to develop and review a nationwide marketing initiative associated with invasive species w/ the coordination with NISC. Further other agencies, NGOs, and the public awareness

campaign to educate the public on invasive species effects and EDRR. Comments on the action item – none. Nobody objects to this action item. We are referring this action item to the proper committee.

3<sup>rd</sup> – It is recommended that Alaska authorities participate in the 100 meridian initiative boater survey so that boater movements be tracked. Will we have Alaskan representation? Alaska is part of the western regional panel. Female – I have a quick question on the forms. Male – several agencies and NGOs were a part of it, but USFWS is where the funding came from for this. As we developed the forms, we see where people are going, so you can know where boats are going and this applies to all aquatic invasive species. This is a recommendation, not an action item. Are there any other comments? Jerry Jackson – Question for bob/suggestion for expansion – Is there training for the inspectors when you talk about new invasive exotics, the manner of vehicle inspection. Response – there is a training module in place. We just need to get the rest of the regional panels to buy into this. Miles – my question was buy in. Where will the money come from? Who does this recommendation go to? Response – it would go to the members of NISC, a number of whom who are in key players in the agencies. Any other questions or comments? We cannot do this via general consent. Motion, motion seconded, is there further discussion? All in favor, aye. Recommendation carries.

This is all the secretary has to report.

Chair – very good.

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

**REVIEW OF DAY 1**

**Dr. George Beck (Chair)** - Is everyone awake? We will not review everything word by word. Does anyone have any questions about yesterday? I see eyes open. As long as there are no questions we will jump right into it.

Our first presentation is by Jeff Conn and Tammy Davis. Jeff is from the USDA/ARS and Tammy is from the Alaska Dept of Fish and Game. The presentation is on the Vectors for Invasive Species, Introduction to Alaska.

**PRESENTATION: VECTORS FOR INVASIVE SPECIES INTRODUCTION TO ALASKA**

**Jeff Conn** – I'll start off. I am talking about plants first. Tammy will talk about the animal invasive species. I wasn't going to do this initially, but after listening to presentations yesterday, I will give a background on Alaska's general ARS history here. In mid 1800s came up to crops and variety of crops that were adapted to Alaska conditions. Homesteaders were basically on their own. It was important to come up with a way to support ourselves here. A number of crop species have been brought into the date and many have escaped the agricultural fields and spread along roadsides and some instances into the natural systems. We had a series of high Fires which have burnt large areas of the forest so we have more invadeable land for the plant invaders to colonize. ARS started in 1948 at Palmer Alaska. I think the empatis for that was the 2<sup>nd</sup> World War Alaska the oceans were attacked by the Japanese. So there was a perception that Alaska had to be self sufficient for food. So there was a big agriculture research push. I came up in 1930 as the first weed scientist guy in the state and worked on weed control and agriculture. Looking to see whether normal rates and timing of applications of herbicides were effective here and looked at fate of herbicides in soils. What we found was that normal rates were working here in Alaska even with the longer days and cooler temperatures, but that the soil, active herbicides persisted well into them. ARS closed down in 1994 with around the federal budget cutting. Congress looked at Alaska 60,000 acres of agriculture production and said Hey we can't really justify having an agriculture research unit in Alaska to support. So Anyway a 7 year time period of ARS not doing anything here. Senator Stevens was able to bring small parts of the program back in earmarks. I came back in 2003. Instead of working on weed control in agriculture, I was working on invasive species issue which is something that emerged in that period of time where ARS was gone from the state. We have been doing a lot of work on the control of invasive species. Some agriculture species have actually escaped. And we find that this research is beneficial not only to agriculture, but now it is beneficial to all these agencies like ELM, park service, forest service and so rather than ARS research being only important of 60,000 acres in Alaska, now we are looking at millions and millions of acres that research is important for. Prevention is a very important thing here. We have some invasive plant species that we have been doing work on. What we would like to do and what we are able to do is to prevent more weed problems....What did I do wrong here. OK. Here we go. This shows the proportion of exotic plant species in the forest. Flores in the far north in Alaska and Canada has relatively smaller percentage of their flores are exotic species. There was a perception that Alaska was immune to invasive plant species due to our harsh climate. Research in Anchorage showing increase in exotic plant

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

species in Alaska from 1968 to 2006. What a significant increase in the number. This is possibly mainly due to the effect of globalization and more brands of exotic species being with able to live in the cold. Why is prevention important to Alaska? We have a relatively few invasive species. We have pristine ecosystems. A lot of ecosystems in Europe are pretty, but the species there almost all non-native. That is not the case here in Alaska. The costs of prevention are so much smaller than those for control. We have few border crossings and ports so it should be possible if we have the will to prevent invasive species from coming in.

How do the species arrive in Alaska? Contaminated seed is one way. Hay and straw surface vectors, contaminated equipment and vehicles, soil in nursery containers often contain exotic weed seeds, and birds and colon could also be vectors. Why is important to know how big these pathways are. We can focus our detection efforts, if we know the pathway such as nursery containers are a significant pathway, then we can look at the places where these containers come in or whether they are planted to look for the emerging weed problem. Also, it serves as a way for agencies and legislators to prioritize which pathways they try to work on first. I am going to talk about 2 different pathways that we studied so you can get a handle how big these pathways are. The first one was weed seedlings that were coming up in ornamental containers. We went to the local nurseries and box stores who are probably bringing in the bulk of these containers with soil. And we bought these plants, took soil samples from these containers, incubated the soils in greenhouse, counted seedlings and identified the seedlings. What we found was that there were 57 broadway species and 7 grasses that we identified in these pots. Of the 57 broadway species 9 were moderately or highly invasive according to our Alaska invasive system. We found that there was a difference in the type of container as to how many weed seedlings we would find per volume of soil. The ball and burlap had the most exotics and tend to have mineral soil and grow out where the weed seeds could be in these balls. Another thing we found was there was a big difference in the suppliers of these containers the quality of the ball and burlap. No weed seeds in one type of containers from one supplier. That supplier has good weed seed removal.

The 2<sup>nd</sup> pathway was imported hay and straw. Often times late summers interferes with local harvest hay and straw. The majority comes from out of state. We identified the hay and straw, collected fines, mixed with sterile potting soil, incubated it and counted seedlings and identified seedlings. We had 36 species that appeared in the fines collected out of hay and straw. Had interested species such as **downeygrown** and foxtails that we don't have established in Alaska at this point. Data from hay straw from WA state, showed if you had 20 ton of the hay and straw then you would be importing 7 million **downeygrown** seeds.

So a few final thoughts. In that 7 year period of time ARS was not here. I worked for the Alaska Department of Environmental Conservation and part of that time was in Oil Spill Response. Having worked in the Oil Spill Response that reacting to invasive species is similar to reacting to oil spills, its better if you can keep them from happening in the first place. Control is difficult and prevention is the most cost effective strategy. It was interesting listening to you yesterday talking about having you justify funding in terms of numbers of acres controlled. I do not see in the oil spill response area that we have to justify expense on oil spill prevention or response as the number of oil spills responded.

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

We would rather not have to respond to any of them. Weed science profession has not addressed the area of prevention. We have spent all our time trying to put out the brush fires. Prevention and what is needed. What is in that bag of seed? The seed tag tells you if there are any restrictive species are in there. The state restrictive species list has not been changed for maybe 20, 30, 40 years and there may be many different species that are in that bag that we don't know about from looking at the tag. The seed trade really fights lists. I am not talking about a list. I just talking about having a bag with a list of what weed species are in there, then people can make the choice. If they want to buy that bag, you can. If they look at the bag and see the weed species that you do not know, then they can make the decision to not plant that bag of seeds. That is all I have. Questions?

**Celia Smith** - I am curious, I know you don't want to reveal the sources. You have the chart with the nurseries and sources of the containers, I believe. I am curious if those were broken down to retail, or garden center. What were the sources? I know you don't want to say. I just want to get a sense of...

**Jeff Conn** – Yeah, the retailers are buying from the suppliers.

**Celia Smith** - Right.

**Jeff Conn** – So that figure had the list of the suppliers. We made the decision when we bought these pots that we were not going to reveal the retailer.

**Celia Smith** – I understand.

**Jeff Conn** – Part of the reason for that we thought that a supplier may provide Home Depot with a product that is weed free, but Home Depot may stages these things next to a field of downeygrown infected product and it won't be the supplier's fault.

**Celia Smith** – Right, so basically it was the wholesale suppliers. Thanks.

**Dr. George Beck (Chair)** – Remember please state your name.

**Peter Albert** – Are there any examples of invasive species dominating habitats that are not heavily disturbed by humans in Alaska yet?

**Jeff Conn** – A couple of species come to mind. White Sweet Clover which was one of these crops that got away. It is taken off down glacier flood plains. There disturbance on those flood plains so the disturbance is driving it. Another one is orange hawk weed it seems to colonize meadows and highly organic soils. It was talked about yesterday on Camp island in a non-disturbed area.

**Dr. George Beck (Chair)** - Very good. Thank you, Jeff.

**Dr. George Beck (Chair)** – Is our next speaker ready?

**Tammy Davis** - Good morning, thank you all for coming to Alaska, to view our beautiful state. Thanks for all you are doing in your state for invasive species. The more the public is educated then the more our legislators are educated. Hopefully reduces the need of expanding invasive species problems. I would also like to thank Jeff, Mary for their work and who else were involved with that. Thanks to everybody in the back of the room who are working on invasive species. We have a nice collaborative effort here in Alaska. We are making good things happen in the ways we can.

I will be speaking on marine pathways for invasive species. The primary pathways are Ballast (? Type of water dumped from shipping vessels?) Water discharge. This is a really big complex issue across many different boundaries. Vessel fouling, drifted viable

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

larvae in ocean currents, Illegal dumping. Unintentional introductions like people not educated on the issues, and fish farming.

Ballast Water Discharge: With our 44,000 miles of coastline, Alaska agencies have a normal charge of caring for the waterways of Alaska and providing sustainable management. Ballast water discharge is the largest pathway for introduction and spread of invasive species. At this time, 24 different non-native species have been detected in Alaskan waters. Ballast water can contain on average 200 diverse species at any given time. The Port of Valdez where the pipeline ends where oil tankers fill up and depart the state receives the 3<sup>rd</sup> largest volume of ballast water of all US Ports and that is 250,000 to 300,000 barrels at a time.

The next issue is vessel fouling. As ballast water issues are hopefully handled on a federal level then Vessel fouling definitely will move into that place as the largest mechanism to bringing a product of invasive species to Alaska. In the map you can see that we get a lot of ship arrivals into the state, definitely we have some areas that get more traffic. In the southeast the areas are visited heavily by cruise ships. Those ships fouling are more a concern on those vessels than ballast water. 70 percent of the 250,000 species in Australia, 74 percent of Hawaii's are a product of invasive species have arrived in bio-fouling. Shipping vessels and barges are the primary means of transporting goods in the State. Barges move in coastal and up river areas that can move species.

Commercial shipping vessels, cruise ships, recreational boats and even float planes can trans-locate invasive species to Alaska. The commercial shipping vessel population moves from out of state for fishing season.

Larvae drift and ocean currents. The European green crab is now predicted to easily invade Alaska with global climate change with an increase of even 2 degrees makes certain areas of the State highly invasive. New research shows that green crab larvae can travel up to 1,200 miles and live for 80 days and still be viable. That takes them from their northern most population on the northwest coast of Vancouver Island up to southeast Alaska and potentially up to Stuart.

Illegal introductions of non native species were dumped. Northern Pike are native to northern Alaska. People like to fish for them so some fishermen took Northern Pike out of Northern Alaska and dumped them in southern central Alaska into a water body.

Several high water events allowed the pike species to move into open systems.

Especially the Palmer area is heavily infested with Northern pike to the point where management is questionable. Likewise, we had Carp luckily a small man made pond several carp was found to have been dumped. Someone decided to dump them from an aquarium. Likewise, the rusty crawfish was found and believed to tie back to someone who imported crawfish for a crawfish boil and one of the kids decided to free a crawfish and release them. Dumping un-native species in Alaska is a Class A misdemeanor. And like anywhere, uneducated individuals and well-meaning children and adults can introduce species by thinking they are doing them a favor by freeing them. Illegally introducing non-native fish threaten commercially important, recreational valuable and essential subsistence species as well as disrupt the ecosystems.

Another pathway is uneducated individuals who plant species such as purple loosestrife, who use **spartiena** or reed canarygrass as restoration species in wetlands areas and New Zealand mud snails can easily be brought into the state by anglers in their fishing gear.

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

So if the fishing gear is not cleaned, it can easily be introduced. Thousands of tourists come to Alaska specifically for the angling opportunities. Schools are a rod can hold New Zealand mud snails. Education is important to close this pathway.

Finally Fish Farming: British Columbia has very viable and economical important fish farming on the west coast of British Columbia. Atlantic Salmon escaped from those pens at the fish farms. Atlantic Salmon potentially threaten our wild stocks of Pacific Salmon by out-competing for food and breeding sites. Luckily there has been a distinct reduction in the number of Atlantic Salmon that have been freed in the last year. We had 4 Atlantic Salmon that were harvested where as in the prior years, 2 years ago, we were in the 100s. Definitely the fish farms have been dealing with those Atlantic Salmon spills. The other issue of fish farming is parasitic sea lice. Sea lice are potentially impacting pink salmon populations. The juvenile salmon leave the natal streams when they are small. Because in those fish farms the population of sea lice is higher than they would be naturally. The sea lice are a native species. At the fish farms the sea lice can proliferate. Those juvenile pink salmon are covered in sea lice and the lesions that the sea lice cause on the juvenile pink salmon can be lethal.

There are challenges to closing these pathways. Obviously the size of the State and coastline especially in relation to the small population of Alaska. We are getting better at collected data and increasing the number of areas of sampling sites. They added the ports where the state ferries dock. Lack of baseline data is really important. Public education is always an issue as well as legislation and regulations. Legislation is moving within the State and sounds like ballast water is moving within Congress so hopefully with this support and our monitoring efforts and prevention efforts will lead to early detection of invasive species. That's all. Anybody have questions?

**Jerry Jackson** – My question has to do with the sea lice. I did not quite get that. They are native here?

**Tammy Davis** - They are.

**Jerry Jackson** - And they are undergoing increase numbers as a result of concentration of captive fish.

**Tammy Davis** – Exactly. The captive fish create a perfect environment for them to proliferate. Because fish farms tend to be near to native spawning streams when native fish are leaving, they have to pass by the fish farms.

**Jerry Jackson** – So they are invasive species that is not exotic.

**Tammy Davis** – Correct. Thank you.

**Lucius G. Eldredge** – Have you considered debris as a pathway? Floating debris we found in Hawaii and the North Pacific floating debris. That vector for at least one species and perhaps more have come from the North Pacific, probably not only from Japan, but also from the Alaska side. In Hawaii we have 421 introduced marine and estuarine species.

**Peter Albert** – Does the State have any power to regulate the sanitation on oil drilling equipment that comes in? If so do they have any plans to exercise that power?

**Tammy Davis** – That's a razor thin line that you are asking me to discuss. The state and oil have a very friendly relationship and anything that jeopardizes that relationship is bad. May be discussed, but pushed aside. There is not a lot of support there.

**Peter Albert** – Yes and no. Thank you.

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

**Celia Smith** – Tammy thank you for your presentation. I thought it was very important to at least underscore how little we know about many of these marine environments. I have a couple follow-up questions based on our experience in Hawaii, have you had any luck on monitoring cruise lines as they come into your state waters for haul fowling. Is that all voluntary compliance or is there any tools that you have to track the kinds of issues as well as the fishing fleet arrives. Is that not subject to state regulations? How do you handle those?

**Tammy Davis** – There are no state regulations and there certainly we are behind in our monitoring efforts. We are just getting started with our efforts with haul fowling monitoring.

**Diane Cooper** – It's interesting. I understand the politics behind the environmental issues. Fish farming is a viable industry. You are very open to talk about anti-fish farming issues. For the sake of ongoing discussions about invasive species. We need to have honest discussions to talk about the issues in order to solve the problems. A health tension comes out of our meeting. From healthy tension comes good policy.

**Tammy Davis** – If I could respond, I anticipated I would have a little feedback. The change in the last 10 years in the number of Atlantic salmon that have been caught in Alaska drastically and quickly reduced. The Atlantic salmon was the first invasive species introduced to Alaska. It is easy for us working with invasive species to wave that Atlantic salmon issue.

**Phillip Andreozzi** – I am curious if the fishing industry has expressed any concern over the invasive species. In New Zealand they inspect anything that you could potentially put into their streams. Is there any type of interest for inspecting fisherman coming up like inspection at the airport?

**Tammy Davis** – Trainings have been done at the Port for boat inspections. The Feds have been proactive in that more so than the State. We are educating in state and out of state guides who potentially bring the species in. We are not where we hope to be in monitoring fishing boats.

**Phillip Andreozzi** – Does the fishing industry see this as a threat?

**Tammy Davis** – There is not a strong out cry for that protection.

**Marilyn Leland (ISAC)** – Tammy, I agree with what you are saying about some of the challenges on regulations and legislation in Alaska. Ironically, the oil spill has actually opened some doors for us to do some of the work we are doing today. RCAC has a decent relationship with the oil industry. Inspections of the tankers have all been voluntary. That has cost the oil industry money to do that because they have down time so they can take samples from the tanks and have complied for inspection of the hauls. They are not required to do it. The oil industry is doing research of what they can use. They looked into putting ozone technology on the ships. They acknowledge and come forward with actions.

**Paul Hoffman** – I suspect most of the development and exploration of oil equipment stay in Alaska and move around Alaska. The oil industry would make new equipment now a days to come to Alaska. I think newly manufactured stuff poses very little threat to introducing invasive species.

---

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

**PRESENTATION: CITIZEN MONITORING FOR INVASIVE SPECIES IN ALASKA**

**Dr. George Beck (Chair)** - Our next two speakers are also from Alaska. The Citizen Monitoring for Invasive Species in Alaska. Linda Shaw with the National Marine Fisheries Service and Gino Graziano with the Alaska Association of Conservation Districts.

**Linda Shaw** – Thanks for the opportunity to talk to you today about the Citizen Monitoring for Invasive Species in Alaska. We have a list of the organizations that are involved in one way or another in citizen monitoring in Alaska. It is a good robust list that includes federal and state entities. We have a tribal participant and some research organizations. The marine subcommittee listed there is a coordinating function. We have a great communication and coordination in Alaska that has helping to leverage our respected resources for citizen monitoring in the State. Community participation and citizen monitoring is an efficient education stewardship and research tool. Also a benefit is that early detection allows rapid response. Rapid response is the most cost efficient way to deal with new invasions is what Alaska is dealing with now.

What are some of the Challenges for Alaska?

Alaska has 44,000 miles of coastline without a road system to access all that area. Alaska waters provide half of all US seafood. The seafood industry is the largest private sector employer in Alaska. How about that? You might have thought it was the oil industry, but it is the fishing industry. We have a lot of ocean dependent coastal communities. Alaska fishing ports consistently rank among the top in the US in both landings and value. Tammy pretty much covered those vectors of concern. The only thing I would add is that the oil trade is exempt from the federal ballast water exchange requirements and reporting requirements as well. And there are no state regulations for ballast water. My understanding is that even with the upcoming regulations in the works, those vessels are still exempt from those requirements.

**Woman** – The Coast Guard exemption was in a Senate Bill has since closed that loophole. The Senate Bill was passed by Congress last year. The Coast Guard exemption included oil tankers as well.

**Linda Shaw** – That's great to hear. Thank you. Another challenge we have with the marine invasive species is that they can use natural dispersal to get here in addition to vector driven methods. They are hard to identify and track. The climate change may enhance the range extensions. The European green crab has jumped up the coast with El Nino events. We have seen in Alaska's El Nino events that southerly distributed species like sun fish and sea turtles show up here. So those are potential stepping stones for them to get up here. We have a sparse human population and limited agency resources. Just to illustrate that the density of people in Alaska is 1.1 persons per square mile and for comparison the density of people in Washington State is 88 persons per square mile. People tend to react to things when they are a crisis, and not before. There is a mentality in Alaska that Alaska is different than the lower 48 states. That's true in a lot of ways, but I don't think it is true enough to keep us safe from invasive species coming our way. Two efforts are going right now for Alaskan Citizen Monitoring centered on two types of organisms. The first are **turnacuts** and fowling organisms. This is an effort led by

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

Smithsonian Environmental Research Center since 2000. Fish and wildlife helped kick start this. There are a lot of participants statewide. The Alaska ferry system is involved. So far this program has found 5 non indigenous species in Duget? Sound, Cashnet? Bay, southeast Alaska. They were basically some tunacits, a crustean hydroid, and an anthropod. The other organism is the European Green Crab that was led by Prince William Sound RCAC since 2005 that was also supported by the Fish and Wildlife Service. There is another of other entities involved with that. Luckily we have found no invasive crabs yet, but they are probably coming. Here is a map showing where the monitoring is occurring. The Bering Sea is not covered at all. There is a data gap. The famous northwest passage is going to become available. There will be shipping opening up and oil exploration. Those are all potential vectors for these species to spread. FUTURE DIRECTION: We need greater spatial coverage and baseline inventories. We need to continue to implement and expand our volunteer networks for the tunakits and green crab. We want to continue the cooperation of monitoring groups that yielded great benefits to everybody to get these projects off the ground. We need to continue to secure funding for ongoing efforts and possibly rapid response efforts because we get all those citizen monitors out there and if we do find something, we need to be able to do something about it. And we need to think about other species: spartina, Atlantic carp corp grass are also on Vancouver Island. It has a seed dispersal potential that could reach us. New Zealand mud snails were mentioned earlier, those were in some Oregon estuaries. Who knows what else might come our way. We need to be ready for that.

**Ann Gibbs** – What is the next step is? What would be the rapid response?

**Linda Shaw** – Basically for the European Green Crab they would trap the heck out of them and seeing if they can get rid of them.

**Peter Alpert** – Is it ok with federal agencies if you have citizens rapidly responding on their lands?

**Linda Shaw** – Well, we don't have a problem with the monitoring on their lands. That question is a good one. That question would have to be incorporated into a rapid response plan effort, which we have not got off the ground yet, but we need to do. Rapid response may involve a higher level of permitting. Why did you ask that question?

**Peter Alpert** – Yesterday, someone from some federal agency said "Let us know about it and we will handle it." Effectively saying that citizens really don't have a place in rapid reponse.

**Linda Shaw** – Ok, I am not sure if that was a land management agency. I am not sure if that would be as much of an issue for coastal agencies.

**Celia Smith** – Are you concerned about the **Anderia** invasion in the California coastal area? I heard about fish and birds, but not algae.

**Linda Shaw** – We got information about what species we should be concerned about. Your point is well taken. I don't know a lot about that species. Maybe that is something we need to be looking at.

**Celia Smith** – I think so, it is moving in the central California area where it is a big concern.

**Pate Brady (NOA)** – Have you looked at other opportunities of observation platforms? NOA is looking to available opportunities at platforms in the Gulf of Mexico. Industry or fishing platforms?

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

**Linda Shaw** – We are looking definitely for those. The ferry terminals are platforms. The US forest research boats are doing research anyway, and we are doing the monitoring with them. Yes, we should be looking harder for those.

**Chris Dean (National Invasive Species Council Staff)** – You mentioned that there a lot of subsistence communities and Alaskan native American communities. Are there any programs specifically targeted to those communities?

**Linda Shaw** – That is a great question. Let me go back to the map. This area from Cordova to Dutch Harbor, some sites are older and they are adding some. There is native community involvement. The southeast Alaska part is really new, just did training last summer and getting monitoring done this season. We would love to have more tribal and native involvement with this monitoring.

**Gordon Brown (DOI)** – I was just going to revisit Peter’s question. The simplest way of approaching the whole issue in a marine environment, I would think it quickly to figure out what the State reach is in your waters to do monitoring on. What are the State waters and whose jurisdiction. That is one issue you can solve locally here to determine who is liable and who is responsible for doing rapid response. On the land, the agencies have the same access issues themselves that a private citizen would have working on monitoring. In other words, if you are going on private land, you would have to have permission and make full disclosure of your activities. That quick answer from yesterday may have had to do with chemicals for applying pesticides to a land. An agency would have someone certified to do the monitoring. A citizen can also become certified. There are many dimensions to it.

**Linda Shaw** – All these monitoring activities are permitted by the State Fish and Game through there collection permit requirements.

**Earl Chilton II** - Is there a list of prohibited species? If you are in possession of illegal species then it may help determine who is liable. If you have an illegal species and have to get rid of it or kill it.

**Linda Shaw** – This is not my area of expertise, but I believe there is a State list, right Tammy?

**Tammy** – Yes, it matches the Federal list.

**Linda Shaw** – Ok, and then with the aquaculture issue, we do have some shellfish aquaculture in the State for things like Pacific oyster, and gooey ducks. There are some regulations in place that require the seedstock is certified disease free to an extent that is effective in maybe preventing hitchhikers species from coming in.

**Dr. George Beck (Chair)** – Linda, Thank you very much.

**Gino Graziano** – Alright is everybody awake? How long do I have? I think I have about 5 minutes so I will not go over too much. I wanted to talk about citizen monitoring for the invasive plants effort. We do not have a rapid response plan in effect for invasive plants yet. I wanted to start out with the citizen side of monitoring since it is the cheapest and reasonably effective. Those are some of our contributors for our service. On the left AAC, **SNIPPEN**, room for National Fish and Wildlife emblem. We’ll find out Friday about them. First I wanted to talk to you real briefly about what early detection and rapid response in Alaska has been. Jamie touched a little bit on that. I will go into some of the tools we have available to us to help early detection and rapid response for invasive plants function in the State and kind of the nuts and bolts of what we are trying to do with

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

the citizen component. Canada thistle plant is widespread in Anchorage, but anywhere else in the state it is a early detection rapid response species. It has been eradicated north of the Alaska Range. They found it the Delta Junction Farming Community and quickly responded and spent 18 years getting rid of the plant and have not seen it 8 to 10 years. In Homer, Alaska they discovered it. In 2005, they are currently working to eradicate this. Have an outreach effort as well. Found one additional site through that. I gave this presentation I Reno at the CWA conference and after I gave the presentation and went to the bathroom and overheard some guy mention that “Wow, I can’t believe that guy is talking about Canada thistle in early detection and rapid response. Our whole state is in Canada Thistle.” That made me smile. I went home thinking Wow I am in a great spot. Another one, the Purple Loosestrife, Jamie talked about this one yesterday. This is actually has been sold and planted in gardens from Anchorage all the way up to Fairbanks. So we don’t whether there are any other populations in the State and we need people go out looking for these. There are some containment efforts going on in the Chester Creek Area. Also, Garlic Mustard in Juno was discovered in 2001. Since 2006 they started a management program. It is reducing the population size and hopefully will be able to eradicate it. It is still the only 2 populations in the State regarding Garlic Mustard are in the Juno area. Another example of early detection and rapid response is at **Codiac** Island used to be covered by ice. They found Himalayan blackberry and Japanese **Knotweed** from ornamental gardens. They responded to that.

Tools we have are the ranking of exotic plants from 0 to 100. It is an incredible tool used to pick plants. Information online for people to find what is near their home and around the State. **SNIPPEN** has shared our resources.

Strategies that we used 80 of above on the ranking list for the citizen monitoring of plants. Increase the awareness and education of these plants.

Five species that we selected were **spotted knapweed**, purple loosestrife, giant hogweed, **weedy spurge**, and smooth **cord** grass. An educational pamphlet has been prepared for these five species. Helps people figure out which plants are invasive species. The reporting instructions are who the people are and where it is, how big is the infestation. I don’t want the people to hold the plant or kill it so we can go out to confirm it. That way they won’t kill native plants by accident. Questions?

**Peter Alpert** – Do you have a specific proposal to solving the second problem up there?

**Gino Graziano** – We can save money by promoting a little bit of money towards prevention now instead of spending large amounts of money for rapid response later.

**Bill Dickerson (Animal Plant Health Inspection Service)** – We have a comprehensive database maintained for early detection. It identifies areas of invasive species and that we checked them if they are there or not. We would be glad to talk with you.

**Gino Graziano** – That would definitely be valuable. We have databases of our own as well. It shows you where we looked and what we found.

**Dr. George Beck (Chair)** – Any more questions? Chip.

**E. Shippen Bright** – You have the ability to do this on your own. I thinking asking the Feds to tell you what to do is barking up the wrong tree. You can bring the aquatics and marine folks all together. It is our State’s economic well being. You can solve these issues within the state.

**Gino Graziano** – We need you to talk to the State Government.

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

**Catherine (TFP)** – We should liberate the funding aspects to do better in limiting invasion of the invasive species. Funding programs are tied to the federal lists.

**Gino Graziano** – We need to know what we are protecting from. There are multiple species that can affect the same ecosystems.

**Dr. George Beck (Chair)** – Thank you very much. Time for a break. We will be back here at 10:15.

---

**JOINT PRESENTATION: Noxious Weed Control on Rangeland Program and Database**

**Dr. George Beck (Chair)** – We need to move along so we don't lose any more time. Gentlemen are you ready? Our next presentation is with Matt Berger and Richard Whitney from the Colville Confederated Tribes.

**Matt Berger** – Thanks for inviting us up here. We are going to look at a much smaller area. The Colville Indian reservation is located in Northern Washington and comprises of 1.4 million acres by the Columbia River and Okanabee River. Two-thirds of that land is forest and the other third is for grazing. Native bunch grasses are so important. 10,000 members are in the tribe. 5,000 members live on the reservation. We protect our habitat and tribe. The invasive species are taking over our ecosystem. We have weeds in our forest lands. The weeds replace the grasses that the livestock need. A lot of this stuff comes from our home garden plants transplanted here. It is important to get out and educate people. Noxious weed populations grow out of control since they have large seed populations and nothing to keep them in check. We do a lot of logging on the reservation. It is a reservation and regional problem that we need to be aware of this. We need to work with the forestry department, fire control and roads department. Most of the reservation is glacial with sand and gravel. The weeds take off on bare grounds such as on access roads. The weeds can be attached to the cars and spread the seeds around the roads. We do a lot of weed control on the roadways. Spread the word, not the weeds! Prevent the noxious weeds to grow in ground disturbances. Education is a solution. We came together with the Park Service, Counties and Washington State University. Collective we address the weeds in the State of Washington. Understand the problem and why it matters. It is important to identify the weeds as published in the blue booklet that we hand out to everybody. There are laws in the State if you have noxious weeds that you can be fined. It also teaches you about weed monitoring after weed removal. What are the native grasses to be used for grazing. We are trying to make changes since the current grasses were put there from Fire Control. We map and see the dispersion of range. The areas are not too easy to access due to rocks. Acres of noxious weeds so they can't be all hand pulled. It can be costly to remove. We talk to people about how the noxious weeds affect the livestock. You can see on the map how bad the noxious weed is. We have to do most of it ourselves we can not beg the Feds for help. We try to reseed with native seeds, not just one, but a few types. It is important to have the ecosystem balanced. Add a piece of the puzzle that is missing in that ecosystem. We are not farmers. We are trying to make a self sustainable ecosystem that may take 25 years to sustain. Traditional and medicinal plants are taken from the environment and the noxious weeds take over their ecosystems. We can't use chemicals because people are harvesting these medicinal plants that grow on the reservation. Chemical controls are poisons and the plants can become resistant. They eventually work back to us. Our people have

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

pesticide licenses. Calibration is important for equipment. We have workshops to teach the people how to effectively cover their grounds. We put blue dye in the chemicals to show the people where they have been sprayed. The blue dye does not hurt anything. We do mechanical control with a few tractors. We do biological control too. Sometimes they can take years to be established. We used beetles for St. John's Wart in the past and had one bad cold winter where they died off. We have moved these bugs around the reservation. The turkeys have moved too and the bugs are like a smorgaborg for the turkeys. The turkey populations have adapted to surround the beetle populations and eat them before they have a chance to hide. So that is a problem. Also, some of the bugs can not live in the type of soils that we have which limits their effectiveness. Some are not readily available. The US has rules on what foreign bugs to let inside the states. The weed has 495 predators, but the US may let in only 1 that does not eat agriculture. We educate the people of what bugs not to squash since the bugs are helping control the noxious weeds. In two years the bugs worked great on Dalmatian Toad Flax. If you can use biological control, that is the best way to go. For early detection and rapid response get to know your non-native weed invaders. We do not have hogweed yet, but they are around the county near us. They are poisonous to livestock.

Who benefits? The tribe will benefit. The members will benefit. The forestry, county, state and federal governments will benefit. Wildlife will benefit. We want to promote the diversity of the native plants and protect the water quality. Everybody benefits.

Above all, be part of the solution, not the problem.

**Ann Gibbs** – I am curious about the biological control agents are there any private entities rearing them?

**Matt Berger** – The University has a contact that can get us the biological control agents from other parts of the State.

**Ann Gibbs** – So you are collecting them from other sites.

**Matt Berger** – We had a lot of wildfires. We moved bugs from other sites to areas that were affected by wildfires.

**Peter Alpert** – Do you find that the annual grasses are from the Mediterranean?

**Matt Berger** – Yes, like cheet grass? That is why we do inter-seeding to try and reduce it. It is really tough to fight cheet grass.

**Amy Frankmann** – You said that people can be fined for having noxious weeds on their land. Is that being enforced?

**Matt Berger** – They are lenient about it. They give a warning and tell you to do some control. They come back in a month and see if you did something. They try to give you the benefit of the doubt. Most people do not know it is a weed.

**Miles Falck** – Where are your native seeds sources and where are you purchasing them from?

**Matt Berger** – After a fire everyone buys up all the native seeds up. We look at the soils and plant spurs of native plants there. We come back and monitor the area.

**Miles Falck** – I would like to try some of the biological agents that you have used. I had trouble finding biological agents for Wisconsin. We don't know if our soil or climate will be suitable for the beetles. Is there a National level of what are the priorities where we don't have biological controls in this country. Who is responsible for developing that or maintaining that research? It has a long term, cost effective benefit.

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

**Man** - ARS wants to hear from ISAC and invite you to a meeting in Florida. I would be happy to ask ARS that question or any other questions/concerns you may have.

**Dr. George Beck (Chair)** – Gentlemen, do you have more to present? We would like to get on with it since we only have 8 minutes left.

**Richard Whitney** – Yes, as you can see we are a very disturbed system in Washington. It is not like Alaska. We have been disturbed for 100s of years now. We manage 60,000 acres broken into range lands and forestry. We have changed the way we do things on our maps. We use GIS now. We made a ranking 0 to 5 and put it in an excel file. Different weed species have come in. The map shows the hot spots. We want to break it down to 10 acre range. It is now at 160 acre ranges. Monitoring of the controlled areas is easier now. Other uses for this you determine the species, can monitor other invasive species, biological control efforts or what ever else species of concern. Questions?

**Dr. George Beck (Chair)** – No questions. You did a great job!

---

**TASK TEAM STATUS REPORT: CREATION OF A NATIONAL CENTER FOR BIOLOGICAL INVASIONS**

**Janet Clark (ISAC Member, Montana State University)** – I put data together of existing invasive plant centers, non-governmental. It is important to know what is already there before we figure out what we need to create. 10 centers on invasive plants. They sent in their information. Their funding is quite diverse. It is interesting that they have a lot of federal funding. They have a tremendous amount of programming with small staff. It is hard for these groups to do long term programming. They spend most of their time fund raising. They agreed to have a National Center, but they were also worried about their funding being taken away. There is a need for National coordination. Establish a meeting and network with existing places that are such a resource. The Governors put out a policy paper in 1990s about invasive species. It has been updated and reauthorized every year or two since then. It calls for an enhanced Federal Role with invasive species management. The Governors want regional interagency and intergovernmental teams including State and public representatives to establish priorities for need efforts and launch joint activities for invasive species control at the regional level. The policy mentioned that electronic database is needed for the invasive species and the federal government should help reduce their spread.

**John Peter Thompson** – Should be go forward? If we should go forward on the idea of the National Center, how should we go forward? We are going to need people on the work group to supplement Janet's research. Ask our federal partners what is important to them about the National Center. What are the functions? Should it be centralized and how should information be distributed?

**Paul Hoffman** – Look at the model ways these groups are already working together.

**John Peter Thompson** – Look how they function already.

**Paul Hoffman** – For aquatic invasive species they have data sharing so you can go to their websites online to see their data. See how they are doing that.

**Man** – In Colorado a National Center for Invasive Species Science was not on the list and should be considered as a model. There functions of the other groups tend to distribute, but not generate information.

**Diane Cooper** – Invasive Species.gov is a great idea for a virtual center of information to get things coordinated.

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

**Earl Chilton, II** – ISAC gives recommendations to NISC. NISC had some strong objections to a National Center last time we met. We should address those issues that NISC members might have before putting forward the recommendation of the National Center.

**Lori Williams** – That is a very good point. Everyone always talks about a National Center. This is the first time I have seen an analysis of what is actually going on out there. This is good. A federal reservation will be that there are already these organizations available and they would have to check the federal budget to see if they could allow for a National Center. This is very valuable to see the coordination happening now. If you show them this analysis and present it in this way, then the feds may think about it.

**Ann Gibbs** – Do you think it would be helpful to do an analysis of other centers with other species so that you can present that along? Would that be helpful?

**John Peter** – Do you think we should keep going? Does ISAC think this is worthwhile work? If the answer is Yes, then we can collect more information on what is going on.

**Ann Gibbs** – We don't want to collect more information unless it will help us.

**Tim Carlson** – Is it valuable to the agencies. Model how it is funded by federal or independent sources.

**John Peter** – We have not collected enough information yet. We still need assessment.

**Jeff Schardt** - A need for the National Center is there. People need to find other people who are already working with the invasive species in other areas/states.

**John Peter** – Should we continue. What should it do next?

**Jerry Jackson** – What is missing from the current centers is the synergy of the animal and plant invasive species. How invasive animals are sometimes responsible for invasive plants. The big picture is the integration and look at the synergisms. Look at not only research, but also education. I think a National Center can encompass all of those things and build bridges among the other existing centers.

**Earl Chilton II** – I think the work of the committee should go forward. We should address in our recommendations the objections by NISC for the Center. We need to present this to NISC in a different angle that has been presented to them before. So there is not a strong reaction to the National Center. I think we need to go forward with a National Center.

**John Peter** – We never got to the point if this is a federal entity. We have not gotten there yet.

**Charles R. O'Neill** - Yes, definitely we should continue. We are missing the aquatic side and critter side. It might be harder to find this area. Much more receptive people are out there. We should go ahead with it with these additions to it.

**Miles Falck** – Find duplication of efforts. We don't need the feds to start new programs that Universities are already doing perfectly well. It may free up budgets for other stuff we can get to.

**Paul Hoffman** – I like Diane's idea of a virtual center. The other organizations have resistance of a Federal Center talking down to them or taken them down. You want to coordinate the information. The importance of the Center is to improve coordination. The best way to improve coordination is by making information available. Provide a website so someone can look up a list of resources without stepping on anybody's toes. I

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

doubt you would have opposition to that. I think you would get a lot of support and appreciation for it.

**LUNCH BREAK**

---

**WORKING LUNCH BREAK PRESENTATION: RECLAIMING RAT ISLAND:  
RESTORING SEABIRD HABITAT IN THE WESTERN ALEUTIAN ISLANDS**

**Steve MacLean** – Welcome to Anchorage. I am from the Bering Sea Program with the Nature Conservancy. Rat Island has been invaded by rats and has been there for many years. We are trying to restore the Island's habitat for the birds. A small boat went aground on the Rat Island that brought the rats to the Island. Sea birds, shore birds currently live on the islands that have not been invaded. The island is empty of birds today. Rats quickly spread through the Aleutian Islands from troops during WWII landing on the islands. Rats are present in 25 villages and islands in Alaska. It is illegal to transfer or harbor these evasive rodents. StopRats.org is website to find out more information about rats on the islands. We give rat kits to boat owners to stop the species from being transferred to rat free areas. In many cases, the rats devastate the ecosystems on islands. 39% of critically endangered animal species live on islands. 51% of critically endangered plants species live on islands. The endangered albatross comes to the Aleutian Islands for feeding from their journey from Japan. 69 % of extinctions happened on islands. Islands are very sensitive and bio-diversified. The causes of these extinctions of species are from invasive species and responsible of 65% to 70% of species extinctions on islands. The seabirds are vulnerable since they lack the defense mechanisms to the rats. Rats eat the eggs, baby birds, and adult birds. They bury the adult birds in a rat nest for later consumption. Over 100 adult birds were found buried in one rat burrow on the island. When foxes were introduced to these islands, they impacted many seabirds on the islands. The guano is no longer present to grow the grasses. The lack of guano create a shrub tundra system on the islands. However, even if rats have been on the islands for a long time, the rats can be removed and the islands can recover. Candle Island in New Zealand had rats removed in 2002 and is much larger island than Rat Island. Rat Island is 1,300 miles southwest of Anchorage and 600 miles from Dutch Harbor. The former Navy base will be our base for our project. Rat Island is 9 miles long and 2 ½ miles wide and 7000 acres. It will be the 3<sup>rd</sup> largest island with rat eradication attempted. We tested the methods used at Candle Island and other methods on the smaller rat infested and non-infested islands. We evaluated the impacts or rodenticide. We had 100% success effect on the rat infested test islands. A field camp was set up on Rat Island to survey the island. Some of the endangered Aleutian cackling goose birds have been trying to nest on the islands. The plan was completed in 2007 and has been reviewed by the We will broadcast a paste by aerial means to the island. This paste was used on the test islands and was successful in eradication. Bait will be dropped from a helicopter. The population density is lower in the higher elevations and higher in the inter-tidal areas. 4-7 days later more bait will be dropped to make sure the juvenile rats have a lethal dose. Monitoring for many years of the island will be conducted to make sure no more rats return in population. Birds and plants will be monitored on the island. We believe the birds will recolonize the island

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

and in the past these recolonize may be slow. We would like to see a nature recovery. If we do not see a natural recovery, we will introduce birds on the island. We would also would like to remove the rats on **Kista** Island in the future. We feel strongly of having success. We will get out there in October despite the cold and wind to restore and reclaim Rat Island. Questions?

**Paul Hoffman** – Do you think you may have to temporary take native animals into captivity during this event?

**Steve MacLean** – No, not on Rat Island since there are no native animals left on the island. They did have to captive animals at other islands in the past. We do not see the need here.

**Paul Hoffman** – What about marine mammals?

**Steve MacLean** – Sea otters are on the islands. They are feeding at the sea, that the bait is no danger to the sea otters. NOA is currently reviewing our permit. NOA concurred that the sea otters will likely not be affected.

**Paul Hoffman** – What about crabs and birds who eat the crabs?

**Steve MacLean** – We can't prevent the crabs from entering the bait bucket environment. There may be an exposure if crabs do get to the bait and if birds do eat the crabs. But as I mentioned earlier there are no birds currently on the island.

**Man** – Well research and planned structured project. What are the challenges to the long term monitoring of people on islands? Have the animal rights group said anything?

**Steve MacLean** – We have no goals to eradicate the islands with people because of the risk to people and pets. The people would like us to eradicate the rats from their islands. The animal rights group has not contacted us. The island is far enough away from other islands and animals.

**Phillip Andreozzi** – This is a fantastic project. How are you going to get the rats to eat your bait when they have a lot of birds available?

**Steve MacLean** – The timing is important. In September all the birds leave, so the food availability goes down. That is when we feel they will be hungry and eat the bait in October.

**Earl Chilton II** – How long will the rodenticide persist? When will the grasses start to grow back?

**Steve MacLean** – The rodenticide will last as long as the bait (grain) persists. The rodenticide is NOT soluble in water. It is there as a waxy substance on the rice grain. The grain can withstand 3-4 weeks with the rodenticide on it, but it breaks down into a non-harmful substance when it is encountered with water. No residuals will be left behind. I don't know about the grass.

**Christopher Dionigi** – Are you aware that the island does get visitors. Are you collecting DNA samples?

**Steve MacLean** – The Rat Island is wilderness and it is available for visitors, but it is very hard and remote to get to. We think we can avoid the invasion of more rats. Tail clippings of the rats will be collected for research at a University about the rats at the Aleutian Islands.

---

MEMBERS FORUM: ISSUE DISCUSSION

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

**Dr. George Beck (Chair)** – Now as you can see on your agenda we are at the Members Forum. I have a note here that we will start back where we left off from yesterday with Celia.

**Celia Smith** – 5 years of research between the University of Hawaii and Aquatic Agency has been successful in making the aquatic vacuum called “The Super Sucker” that will eventually be used as a management tool, not a research activity.

**Earl Chilton II** – Final results for 10 years research at Pearl Harbor will be completed soon. 400 and some species will be in a GIS system. There will be a Conference in July in Hawaii that will have sessions on invasive species. They will be updating their invasive species strategy.

**Catherine Hazlewood** – The global assessment of marine invaders was published by one of my colleagues that you may be interested in. Australia’s weed assessment has worked well to predict new invasions. Invasive weed coordinators were hired in China for their new park to reduce weeds. Congress has a bill to require shipping vessels to treat their ballast waters. It closes the oil and gas tanker exception that applies to ballast exchange. This bill authorizes funding and requires ships to use best management practices. The Senate’s plan is to pass the Coast Guard Bill. The bill is partly controversial. Call your Senator to get the Coast Guard Bill through. The House drafted a bill to fill the gaps of the screening availability to reduce invasive species from coming in. They are still in the development stage. The Repair Act will authorize new funding for the Wildlife Refuges to deal with the invasive species. The definition was not clear of what invasive species were. As a committee we should do some further outreach.

**Janet Clark (Center of Invasive Plant Management)** – A conference was completed in Reno, Nevada. We talked about the cooperative management, logistics, laws, legislations, education, and networking. Primary non-profit groups were involved like **SNIPPEN** from Alaska. A lot of funding was federal funding. It was valuable collaborating with the other organizations. Our Center has hired a new director in March named Liz Gallelo.

**Jennifer Vollmer (BASF)** – We have given away \$½ million of grants. That’s for matching grants. BASF pays 25% of the grant. It helps people to do herbicide treatment. People have partnered with industry to win larger dollars. BASF will continue with the program of matching grants. It is better to buy the branded product instead of the generic product since it puts more money back in the program.

**Earl Chilton II (Texas Parks and Wildlife Department)** – We established the invasive species department and council. We have bylaws. We are planning to do annual invasive species workshops. There are a number of plants that are illegal that they are proposing to use for making biofuel. The plant is invasive, so there is a plan to educate them about using plants that are not invasive to make biofuel. In Texas we have a carp issue and we protect the carp to one fish per person in the lake. People were mad that we were protecting the carp. We had many meetings about carp. We also were looking into reviewing bio controls to remove **Hydrilla**.

**Dr. George Beck (Chair)** – There is data out there for bio controls.

**Amy Frankmann** – We held a consumer awareness invasive species workshop. It was very successful and we plan on holding more of them. We did finish our invasive

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

assessment system. We are working with the State of Michigan Agriculture to make nurseries look at what they have as invasive plant species.

**Ann Gibbs** - How much money has been put on this assessment? I am working on something similar.

**Amy Frankmann** – This is the 2<sup>nd</sup> year, I think \$20,000 to \$30,000 for 2 years total. It paid for our grad student working at the Michigan State University.

**Jerry Jackson** – I have been working with iguanas on Casper Island. Lee County has hired a professional trapper who caught 4,000 iguanas. I teach biogeography courses on exotic pests. I am on the council for exotic pests/plants. We award small grants to teachers and individuals across the state for exotic pests/plants. We have given 10 grants of about \$5,000. It has been a successful program.

**Chris Fisher (Colville Tribes)** – I attended American Fishery Society (AFS) conferences and AFS meeting where there were many presentations and papers on invasive species. The word is out, invasive species are out there. Most of the discussions were of fish species. We are in the right direction.

**Jeff Gardner (Florida Department of Environmental Protection)** – A conference will be held next year for teachers to help train students in invasive species. The objective is having 100s of teachers to teach about invasive species. We have a lot of information on the website for teachers. They can contact the University of Florida website for class curriculum. Also people from the Dept of Interior who educate people can take these workshops. All levels of teachers are welcome.

**Diane Cooper (Taylor Shellfish Farms)**– The federal government has recognized that Puget Sound is in dire straits. A new agency was developed to start working on restoring it. 10 years ago you would not hear the term of invasive species. Now it is on their minds. That is good. We looked at pathways for the invasive species. We will battle Washington over it. A strategic plan was put together on the aquaculture industry. We need to understand the farmer's paranoia and see how it affects them. The farmers are reluctant to disclose information. Our environment continues to erode. The case study will be provided for you in the Washington Council Plan. This is my last meeting with ISAC. It has been a pleasure to serve this term.

**Miles Falck (fish and wildlife)** – I went to a data sharing conference. Out of that conference we are pursuing a global invasive species internet network. Close to getting that working. Wisconsin also will try to implement that. Endangered resources also has a database. We have a potential to have 3 different databases talking with each other. Looking forward to getting that implemented. Wisconsin is developing BMPs for forestry, recreation activities and logging. Two will be available for comment this summer. We are working with NICS to budget standard rates to treat invasive species. In Wisconsin and Michigan the wildlife management have started to meet who have been doing things on their own for a long time. They are trying to share ideas and do education and outreach to their anglers and hunters.

**Peter Alpert** - Nitrogen has been in the news last week. Add nitrogen to the land as a fertilizer to help plants grow. Nitrogen in the air pollution has killed an endangered species of butterfly in San Jose. San Jose had the high level of air pollution and high levels of nitrogen in the soil that killed the butterfly's larvae on the plants that adsorbed the nitrogen in the soil from the air pollution. Cheat grass is highly flammable. A study

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

in Irvine showed that air pollution has reached out to the desert like in Riverside from Los Angeles where the nitrogen has helped the cheat grass grow and cause fires in the desert. The fires have affected the growth of the Joshua trees. The Joshua trees reproduce at an old age and after 2 fires, the population can be wiped out.

I have a brief summary of invasive species in Alaska after talking with Tammy Davis. It seems to be that Alaska is not much invaded. There seems to be one key question. Whether we need to worry about invasive species in Alaska. There seems to be 3 hypothesis that address this question. The first one is that invasion to Alaska is limited by extreme conditions. There is a lack of disturbance to the soil. There is need to worry about only logging, retreating glaciers and floods. Hogweed grows around the retreating glacier areas now. Invasion is limited by lack of importation of species. Most people support this. We want to keep them from arriving on ships.

**Chuck O'Neill** – New York State structure for invasive species. Program recommendations were pushed to the New York State government. They passed a law to follow the federal law to establish Invasive Species Council. One is a fresh water research institute. I will be the Sea Grant representative. 15 members are all stakeholder groups. We wrote a white paper on the definition of invasive species. In 2006 we were given \$3.5 million. \$1 million was given for invasive plants species. For 2007 and 2008 we got \$5 million. We added grants for terrestrial plants. Cornell University has established an invasive species institute. This is environmental protection fund money that will be used for programs, so it can not be used to pay government employees. The organizations will be doing grass roots management, invasive species GIS mapping programs. We are establishing a New York State Clearing House on Invasive Species that will have information, website, publications, and magazine. We will do coordinate outreach. A statewide education program will be \$3.15 million contract over the next 3 years. We are hiring staff for each region in New York. We are trying to integrate all this together in New York State. We made a 4 tier lists. The first list shows the prohibited species for sale (blacklist). The second list has non-invasive and no risk species. The 3<sup>rd</sup> list shows what to study. A 4th tier is the process how to develop the 3 lists.

**Robert McMahon** – Zebra mussels in the west is a hot issue. It has raised the horizon of the aquatic invasive species in the west. They were found in downstream of the Colorado river, Lake Havasu. Samples were alive for 3 years. They are looking in Arizona too. Zebra has been found in Arizona reservoir lakes and in Southern California. They have been established for a few years since the water supply goes there. How to prevent the Zebra mussels from going into their system? They would have to shut down the reservoir or spend a lot of money at entry points. These are problematic. East of San Francisco had a reservoir used as a recreational lake had Zebra mussels almost 3 years old. It looked like they were in there reproducing for 6 years. There may be younger, smaller populations out there in reservoirs that need to be inspected. Reservoirs in the US need to be inspected as soon as possible. It is an ongoing situation.

Oklahoma reservoirs found mussels that are in Southern California. Because the mussels are in selected reservoirs, the mussels may be one population with a higher temperature tolerance. The case study showed that the mussels were not the same as the New York population according to thermal tolerance. The mussels died off massively in August and

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

ate themselves out of home. In the summer the mussels are starving and can't tolerate the conditions. It is possible that these lakes are going thru the same thing. Massive die offs could happen in 6 years in the California reservoirs where the mussels eat themselves out of home. Texas and the southern states do not have mussels in their lakes due to the warmer water. Oklahoma has cooler water temperatures than Texas.

**Dr. George Beck (Chair)** – We need to stop here now and go onto the next agenda item. We can continue this forum discussion tomorrow. I think we will have 3 left and we will have an hour tomorrow. Lori it is all yours. Do you want to take a break first? Ok, come back here at 2:30.

**BREAK**

**Dr. George Beck (Chair)** – NOA are you ready? Bill will present it. We will be doing the Selection of Crosscut Items now then come back to it later after the Cultivar Presentation.

**Bill** – I tried to organize suggestions for the crosscut with the person who said them. Please read through it. Think about what is a priority for a crosscut or ISAC.

**Dr. George Beck (Chair)** - How is this going to be used?

**Bill** – This is what will be included in the concept when we talk to the agencies.

**Woman** – It is a way of what the department thinks are a priority for the agencies to hear what to think about in FY10.

**Women** – I want to make sure we understand this is for FY10.

**Robert McMahon** – Do you want us to pick 5?

**Woman** – We can't go forward with 27. We want to prioritize this list. We will get back to it after the presentation.

**Dr. George Beck (Chair)** – Chris are you ready?

---

**PRESENTATION: NISC/ARS CULTIVAR WORKSHOP**

**John Peter Thompson (ISAC Member)** – In an effort to see if USDA ARS could be a help for invasive species, they corralled me to help them. I suggested it would be a good time to have a meeting of horticulture industry and environmental nature conservancy groups. Will ARS be a 3<sup>rd</sup> party in the discussion on invasive plant species? We put on a 2-day workshop by invitation only. 30 invitees include USEPA, State departments of agriculture, and National Arboretum attended. They focused on where they agreed such as gas and scientific knowledge in the issue of horticulture. Getting the groups together led to many disagreements. We discussed cultivar and sterility. It was the hook to get them together, but I expanded the program. We talked about the effect of climate on invasive species, gaps of data, researchable issues, cultivar and sterility. Here is the MEGA charismatic document. ARS is now hearing us at this meeting. ARS told the nature conservancy was a stakeholder and they did not know about it.

**Chris Dionigi (NISC Staff)** - Thank you, the outcomes of that meeting is in this 30 page report. Give me the edits so we don't take up time. ISAC and NISC was apart of that workshop. There are 3 recommendations listed in the back that John Peter was talking about. Global scale processes are listed as the first one. The second one concerns systematics. The third one deals with developing better methodologies for evaluating invasive species. Can the horticulure produce a variety that is pretty and grows, but does not produce seed? If you could do such things can you evaluate it in a certain way?

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

The question is acceptance of the report. Anybody else who was at the workshop is there anything you would like to add or say?

**Gordon Brown (DOI)** – I am excited by the partnership in this effort. It happened fast. The systematic recommendation is complicated. Budgets are tight. We are not crafted as agencies to do systematic research. We are supported of the first and third recommendation.

**Dr. George Beck (Chair)** – Our university president came back from WA with a whole bunch of priorities. I don't think the DOI has to do the research, but to promote the research in the Universities.

**Paul Hoffman** – Look at the words. We have to look at systematic approach.

**Chris Dionigi** – I make a motion that ISAC approve the acceptance of the workshop report of the ARS meeting in Washington in March 2008.

**Ann Gibbs** – I am trying to understand how these came together. Did the recommendations come from the workshop?

**Chris Dionigi** – These are not from the workshop. I prepare these recommendations and some of it reflects what happened at the workshop.

**Celia Smith** – I think it is important to emphasis on training, not just research. Systematic aspect will be complex. Does NOA have an education arm?

**Dr. George Beck (Chair)** – We need to address the motion on the floor. The recommendations are not a part of the report. Let's vote on the acceptance of the report. All those in favor say "Aye".

GROUP – "Aye"

**Dr. George Beck (Chair)** – All those oppose say "Nay"  
(Nobody said "Nay")

**Dr. George Beck (Chair)** – Thank you. Motion carried.

**Chris Dionigi** – Thank you. With the report accepted now we move on to the 3 recommendations that I have made. I suggest we can take a look at them in order. It was just to get the conversation going. Let's discuss the one on climate change.

**Peter Alpert** – suggested an editorial change.

**Peg Brady** – What will be the response to these recommendations?

**NISC Women** – ISAC makes recommendations and it is up to the NISC members how to respond. Since not all NISC members are here we can not give feedback.

**Peg Brady** – What are the expectations?

**Woman** – The ARS program next week is for the weed program. I don't feel it is what the weed program is focusing on.

**Chris** – They invited this.

**Woman** – I don't understand what it is coming from. I have edits on recommendations.

**Man** – Work out the language and bring it back to the committee tomorrow. I attended 4 of the ARS meetings in the past. Don't believe what we give ARS will go through or else you may be disappointed.

**John Peter Thompson** – We can meet after we adjourn to discuss the word smithing on the recommendations. The Chair likes it.

**Dr. George Beck (Chair)** – We will do the members forum tomorrow to deal with this. Now we will discuss the budget recommendations.

**Ken Zimmerman** – I like the regional invasive species part.

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

**Robert MacMahon** – Do we circle research if we want emphasize it?

**John Peter** – I don't know what to do if we take out examples and leave in research. I added edits.

**Woman** – Peg, can you comment on NOAA's funding education programs.

**Peg Brady** – We have struggled with public outreach and training. It is not included as part as our mandate. It has since changed now. We have fellowship programs. Its new assessment.

**George Beck** – I have to give my assessment of the invasive species in the US. I would like to emphasize on education so this does not go away when some of us who have been working 20 some years on this may leave.

**Woman** – Information sharing and GIS systems that the Feds can help with the State. I suggest combining. I think it is more than management areas, but cooperation on a large area. The States are willing to do the work, but they just need the Fed cooperation.

**Woman** – We need to build in this cooperative aspect.

**Woman** – The States are already doing it. It is getting the Feds to cooperate with the States.

**Man** – We can put in those details after the fact. All we can do is list activities and partners in a very generic way.

**Woman** – Can we put that someone did something because of matching dollars?

**Man** – No. We have to get pretty specific at some point.

**Woman** – People need to understand why this is important. I would like to plug forest pests in.

**Diane Cooper** – I would go back to the management plan to figure out how to prioritize these. Economic impact analysis has been raised time and again. It has grown in emphasis.

**Woman** – I would like to plug in restoration. Restoration is the big picture. Must there be species initiative?

**John Paul** – I would like to look at this crosscut budget and see some balance. I would like to see some balance of resources put into this effort.

**Jerry Jackson** – What is the purpose of what we are doing? Number 2, we are trying to do a sales job. We are going to sale the problems we see to what audience? Who are we trying to sell it to?

**John Paul** – This is an effort for O&B. After the budget is done, we will put it on our website for the public to view.

**Jerry Jackson** – We will have an audience that may not understand our language. We are looking for poster children for all of these things.

**John Paul** – This list is not a priority for the country. We have to be careful about that.

**Peter Alpert** – I would like to see a breakdown between agriculture and non-agriculture invasive species.

**George Beck** – There is nothing wrong with a poster child. Bring education to the forefront to get more people involved.

**Celia** – I see 4 major themes in our discussion: education, economic impact analysis, restoration, and systematics. I think we are ready to vote.

**Paul Hoffman (DOI)** – Talk about the poster species that has the greatest impact like Zebra mussel. We are trying to build part of the message to go with the numbers.

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

**Miles Falck** – I would like to pick a poster child that overlaps these ecosystem services.

**Diane Cooper** – I agree, I suggest that the Zebra mussel can do that. The public is getting to know the Zebra mussel issue.

**Robert McMahon** – I would like to extend the voter survey. There is a significant education part of it. It will bring in a research component and provide data. Yes, the west needs now an economic analysis since they do not know what they are up against.

**Chris Fisher** – All the effort goes into the management plan and it should be implemented. We have to tie back into that. I suggest picking out a poster child that is in many regions that goes across the US.

**John Peter** – It has to be supported by regional level, and people doing the research.

**Man** – I suggest that climate change and systematics go together.

**Man** – I believe climate change is very important since I worked in this field for 36 years and it needs major research and people are very aware of it.

**Woman** – All of these ideas will go as part of the discussion. Prioritize 10 items or less can be easily digested. Mr. Chairman, do we have time to condense this list and come back to it tomorrow?

**Dr. George Beck (Chair)** – Yes, we have time tomorrow to discuss this. I am confused on what we are picking. Can you explain a little more what we are to prioritize?

**Man** – We are picking from specific headings.

**Man** – Can we circle our top 10 and had them to you? You can widdle it down to a top 15 that we can prioritize tomorrow?

**Dr. George Beck (Chair)** – We are not here to redesign federal budgeting. It is taking us down a road we don't want to go.

**Miles Falck** – I am not getting less confused either. What discussion does O&B make from this?

**John Peter Thompson** – They receive it and discuss with high authorities then they can see where we are budgeting such as a 5% increase in this invasive species. They can see how the other efforts will combine and make an accumulative effect. You see how the Federal budget is being spread out.

**Man** – So the crosscut budget is where the agencies see how other agencies are budgeting their money.

**Dr. George Beck (Chair)** – O&B is at the top of the organization chart of the federal government. So they are looking to see that the Feds are not cross budgeting. If we show greater coordination, we rank higher. O&B tries to get the whole federal budget on target. This is a difficult budget time and it is slim now. You are basically keeping yourself alive.

**Man** – Just remember “Invasive Species, A Homeland Security Issue.”

**Everybody** – haha

**Man** – Let's break down the list.

**Diane Cooper** – It does seem simple and I want it to be meaningful.

**Woman** – We can do 2 things. Vote on this list, amend it, or reformulate the list tonight and vote again tomorrow.

**Man** – The more collaboration we show, will be more money we may get? Then some of these things can be lumped together.

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

**Jerry Jackson** – Biofuels is not on here. We need to have a collaborative effort on selecting non-invasive species for biofuels.

**Chris Fisher** – I want to vote for the reformulate. I don't want to be hasty on future funding.

**Dr. George Beck (Chair)** – We have the timeframe tomorrow to do this. Reorganize this so it appears less confusing on us. Lets resume this conversation.

**Jeff Schardt** – We can help you out on widdling them down now, to make your job easier for tonight.

**Woman** – talk to us afterwards.

**Dr. George Beck (Chair)** – We have to go forward and not spend any more time on this. We need to review the final 2 items for recommendations to NISC.

**Chris** – My recommendation is that USDA and DOI in cooperation with State Agencies should initiate rapid response on 10 invasive species to eliminate from the State of Alaska.

**Woman** - Second.

**Dr. George Beck (Chair)** – Now it is open to discussion.

**Woman** – Where are these species located? Private lands?

**Chris** – They are spread across all the lands. The Indian reservation would need federal dollars to eradicate the species with a small amount of money.

**Woman** – I need more information.

**Dr. George Beck (Chair)** – Motion withdrawn. Peter, we would like to hear yours.

**Peter** – Invasive species that are now widespread in the continuous United States are often not assigned a high priority for control because control now appears impracticable. However, some of these species are near absent or rare in non-continuous states where remains practical and could be facilitated by assigning high priority to the species. ISAC therefore recommends that there be mechanisms within USDA and DOI for assigning high priority for such widespread invasive species specifically in support of early detection and rapid response in non-continuous states where the species are not yet widespread.

**Miles Falck** – I like something in between. I think we need to describe the species and see if it is cost estimate. I don't want to limit it to non-continuous states. We need context specific criteria to free up funding to deal with these species.

**Robert McMahon** – I think these are two different issues. I suggest that Tim put your motion back up and come back to this one.

**Earl Chilton** – We should not limit it to States and include territories and possessions. We talked about Guam and other areas around the world that are not states.

**Jennifer Vollmer** – Mention that cost effective measures should be in control. There are many other pieces to that besides the immediate control.

**Ann** – We were trying to specifically address Alaska's uniqueness.

**Tim Carlson** – This is a specific request. I look at rapid response as a process as working with land owners and agencies. I tried to make it simple. My recommendation is that USDA and DOI in cooperation with State Agencies and Native Corporations should initiate rapid response on small infestation of invasive species to eliminate from the State of Alaska.

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

**Dr. George Beck (Chair)** – We may need to be more specific to get them to change the way that they do business for years. I like the recommendations. We need to make a decision to go forward. We need to deal with Public Comment and then come back to this.

**Man** – Second.

**Dr. George Beck (Chair)** – So we have a motion on the floor. Any more discussion? Tim read that again.

**Tim Carlson** - USDA and DOI in cooperation with State Agencies and Native Corporations should initiate rapid response for approximately 10 invasive species to eliminate from the State of Alaska.

**Dr. George Beck (Chair)** – All those in favor say “Aye”

**Everyone** – “Aye”

**Dr. George Beck (Chair)** – all those opposed?

Nobody said Nay.

---

**PUBLIC COMMENT**

**Troy and wife Lori**

**Troy** – We work on grass root invasive plants. We are starting our own non-profit. We agree that we need to get right on it now. Some of you may know what this means. We went to a local nursery this morning and saw that they are selling Russian Olive.

**Lori** – We are excited you are here. We bought a plant here that had a Canada Thistle growing in the pot with it. We did some research about why we should care, and we decided we need to. We started our own little non-profit and reaching out to local councils what we have learned and why they should care and that this is such a serious problem. It snowballed. We wrote to every legislator in Alaska and had a response that it is in the works. Educational: we talked to the land owners and citizens. We have been amazed to get citizens involved and go to the legislator and make appointments with Congressmen. We had a lot of success talking to Congressmen and telling them that they need to do something about it. They said ok. Don't forget your citizens and volunteers because they do have a voice. We are happy you passed that last motion because Alaska is the last State that can actually eradicate invasive species and do prevention.

**Gino Graziano (Alaska Association of Conservation Districts)** – Thank your for passing that last motion as well. That motion will actually happen and something will become of it. I just want to mention the differences that Alaska has with the other States when it comes to Federal funding. BLM gets ½ of a percent of the federal funding for invasive species. BLM works on 27% of the land in the US that has invasive species. There is a large discrepancy there. The Park Service gets half of what other states have to fund invasive species management and they have 68% of the lands that they manage are in Alaska. The Fish and Wildlife does not receive any federal funding specifically for invasive species. 83% of the Fish and Wildlife lands are in Alaska. This is an issue of National importance and needs to be dealt with. I can offer to compile the information that we have done in the State for early detection and rapid response for invasive species. I work with **SNIPPEN** who works with other agencies so I can get that information of all we have accomplished in the State of Alaska. I hope you could do a motion to increase the funding for Alaska to manage the invasive species. Or increase that funding so we can stay in the early detection and rapid response level.

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

**Dr. George Beck (Chair)** – Any other comments? Thank you.

**Chuck** - I would like to thank our first speakers to be here today. Six years ago we had federal agencies here. It is refreshing to have the public here during the public comment period.

**Dr. George Beck (Chair)** – Secretary, do we have any more action items we need to address?

**Secretary** – No. We need to address the recommendations after the meeting is adjourn.

**Man** – What about Peter's?

**Dr. George Beck (Chair)** – We can reword it or vote on it.

**Peter Alpert** – I would like to ask if this one will help address it further. I will talk with Jeff and bring it back up tomorrow.

**Dr. George Beck (Chair)** – If you have edits to this document give it to Phil. Otherwise we will stand in adjournment until tomorrow morning.

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

**Day 2**  
**Invasive Species Advisory Committee (ISAC) Meeting**  
**5/13/08**

5/14/08

## **Review of Day 2**

Good morning everyone. There were some interesting things that happened yesterday. We have a review of Day 2. Peter, do you have anything you want to review for Day two. I have here a note that says we need to be thinking of what should we discuss during the next ISAC meeting. So, we also have to figure out what dates to meet for the next two ISAC meetings. We'll do that during the ISAC administrative issues (along with bylaws and steering committee issues). I think we have enough people, and we'll deal w/ that when we get there. Without any further ado, Jerry Jackson will give a presentation on biofuels.

### **Presentation – Biofuels and Invasive Species by Jerry Jackson, ISAC Member**

Is the mic working ok? I'd like to begin by telling you about one of my graduate students who was from Pas-Christian, Mississippi who married a congressman from Tennessee. As a result, she is one of his most successful graduate students. When I attended her wedding, the weekend before, the news came on the radio, and they said that Ms. Ookie Hayes will be marrying congressman Jim Cooper from Tennessee. She is Pas-Christian, Mississippi, and she is a practicing ornithologist (joke). I have an interest in biofuels b/c of the use of biofuels in Florida, and the planting of arundo donax in Florida.

I am handing out literature and web-site information. There are wonderful discussions about invasives in the web-site information. Another piece of information is from Australia and it's a wonderful introduction to invasive species used as biofuels in Australia. Interesting tidbits regarding properties of biofuels are in the other articles.

The bottom line is that biofuels are a social, political, and economic mandate. They are here to stay. It's our job to try and steer the use of biofuels towards minimal harm to the environment and also the best biofuels. Development and trade of biofuels are growing rapidly and without a great deal of coordination. The mandate stems from a need to be self-sufficient and the fact that fossil fuels are finite and seriously declining. Biofuels give some promise of renewable fuels. The magnitude of political involvement is worth mentioning. As you can see George Bush speaks out on biofuels consistently. Bill Clinton, Hillary Clinton, and Barack Obama, and John McCain have also spoken of it.

Bill Clinton continues to have interest in biofuels through the Clinton Global Initiative. Last year, he promoted a 100 million dollar project to fund biodiesel from Jatropha in the West Indies to pull those people out of poverty. It was a social issue that could have improved the lives of those living in poverty in the West Indies.

There are a number of federal actions taking place relative to biofuels. The Energy Policy Act of 1992 says 75% of federal light duty vehicles must be alternative fuel vehicles. In August 1999, President Clinton issued Executive Order 13134 which called for the increased use of biomass for energy. April 2000, President Clinton Issued

Executive Order 13149 called for 20% reduction of petroleum use in Federal Fleets. In George Bush's 2007 State of the Union address called for 20% reduction in our consumption of gasoline. The last item, March 2008, is a publication of the biomass multi-year program plan by the Office of Biomass Program in DOE. The issue is growing rapidly. States and other countries are on the biofuel bandwagon as well, including the governor of California. This is something occurring around the world.

ISAC can play an important role in the biofuel arena by identifying the species to use and not to use in biofuel, ways in which biofuel efforts can minimize the risk of invasive species, guidelines for selection, development, management, and monitoring of biofuel crops, potential bioengineering needs to reduce the threat of potential problems from invasive species crops, for example genetically engineering sterile plants. Monitoring is going to be very important.

I provide this quote which came from this week's special release of the Plant Journal "the consequences of establishing monocultures of novel biofuel crops or expanding the range of agricultural land for biofuel crop production, for competition, for resources needed for the resources for crop production needs to be carefully analyzed. The discussion of the risk must be science based. At the same time we must understand the risks of not moving forward expeditiously to build a sustainable bio-economy." There are a lot of discussions that are not science based on online blogs.

I'd like to begin by defining biofuels, so I thought I would provide a primer to provide you with. Biofuels are fuels from renewable and biological resources, not fossil fuels.

Animals, animal fats, plants, plant fats, oils, sugars, starches cellulose, will be coming on strong as biofuels develop. Some are not easy to convert to ethanol, but it's in the works. Microorganisms can break down plant or animals and produce gases through microbial digestion and is being done. It's big in Germany and getting big here in the U.S. as well. Blubber is a biofuel.

Bioethanol is a biofuel that we've all heard about and is what a lot of people think about regarding biofuel. National Geographic's article "growing food" was more about using corn for food or corn for fuel. *Arundo Donax* is being used for bio-ethanol and is used as a fuel to be burned to create electricity. Biodiesel is a cleaner burning diesel made from plant oils and fats by squeezing oil from seeds. It's coming on very strong and used in third world country. You can just use a press to squeeze the oil in a press, so it is becoming more popular. Palm oil and *Jatropha* oil and others are also being used for biodiesel.

Growth in biodiesel production was zero in 1991 and going up to today – over 3500 million liters of diesel being produced today (probably not a realistic number b/c there are lots of farmers creating their own biodiesel that is not being recorded in this approximation).

Biogas is a gas produced by biological breakdown of organic matter. Pig farms are being exploited by the Chinese and U.S. to get this. Cities in Florida are collecting biogas from landfills as well. This happens in the absence of oxygen. Biogas facilities are entirely closed. They are making use of waste materials as resources, and are a great source of alternate energy.

Biofuel varies greatly from one source and biofuel plant to another. Barley and corn are popular. Corn is weak compared to sugar beet and sugar cane for biofuel purposes. Biodiesel feed stock includes soy beans, and they are very important in Brazil and in the U.S. even though the liters per hectare are really low compared to other biofuels. One of the biggest reasons for cutting down rainforests is to plant soybeans for use as biodiesel. Palm oil plantations in Indonesia are a cause for degradation of biodiversity in Indonesia. Jatropha oil is another tropical plant native to the Caribbean, and soybean/castor beans are also used.

Biofuel costs per British ton – Ethanol from grain is the highest cost. Ethanol from corn is the 2<sup>nd</sup> highest. Not very efficient and costly compared to other. Note that these figures are changing and costs are going down. I am providing a post 2010 estimation of costs for these

US DOE report lists a prediction made in 2005 that says a billion ton amt of biofuels will be comprised as follows - 1/3 from crop residues, 1/3 perennial crops (including e grass), 1/3 from forest resource (problem is that wood is high in lignan content and they haven't solved this problem).

What makes a good biofuel plant? Fast growing, high usable volume per acre, low water and fertilizer use, high pest/disease resistance, strong competitor among other plants, low herbicide use, perennial so you don't have costs of replanting, high reproductive rate, readily accessible, high energy content. Invasive species are all of these except high energy content.

I am going to highlight some of the plants that are being used and what will be used in the U.S. and elsewhere. There are lots of entrepreneurs selling do-it-yourself kits for obtaining oil from Jatropha. It grows as a tree or a shrub. It produces seeds after the second year. It's toxic. If you eat 3 seeds, it can kill you. It is banned in Australia. Seeds are dispersed easily. Jatropha is a very efficient source of oil for biodiesel. There is a conference in Jatropha regarding the use of Jatropha plant for biodiesel. Politicians donated Jatropha plants to Fort Myers, Florida. It is political and being promoted and people are jumping on the bandwagon.

The popcorn tree can also cause problems as an invasive in the biofuel industry. The oil from this plant is useful. It was introduced in the late 1700s by Benjamin Franklin to revolutionize the candle industry. It was one of his failures b/c instead it became an invasive exotic banned in most states. Even though it's banned it's online and people are buying it to use in getting biodiesel from it. In Louisiana, they are trying to produce sterile seeds from the popcorn tree so that the oil can be used w/out the danger of

invasions. The American Institute of Chemical Engineers in 2006 and 2007 wanted to produce biodiesel from popcorn tree (Chinese Tallow Tree) b/c 15 times (2006) the amt of oil that can be produced compared to soy. In 2007 sources say it creates 10 times more oil than soy. So you find constantly changing figures.

African and American oil palm are two different species. One is native to Africa, and one is native to America. Both are a source of oils for biodiesel and both are being used as sources as biodiesel. It can only be grown in Southern California and South Florida. It is commonly used in Africa.

Castor bean is native to the Southeast and Mediterranean. I grew castor beans. It is common in North America and is a source of reisen. A very small amount of reisen can kill you.

Grapeseed, Canola are used in Germany. This is just to give you an idea of how biofuel use is growing around the world.

Sunflower is dear to my heart. Bird seed won't be available to attract the birds. Which is the higher calling? I don't know.

Arundo Donax is my nemesis b/c it is being grown around my house. It is one of the most invasive species all over the world. It's awful b/c it takes over wetland areas and stops streams, is a fire hazard, it destroys and takes over native species, destroys habitat for wildlife, and we can see that near our house. It primarily reproduces vegetatively. There are proponents of using arundo donax as biofuel b/c it's "sterile". However, a just a small piece of the plant can start a whole new plant. It should not be planted near wetlands or in areas with hurricanes that might disperse plant parts everywhere/tornadoes that might disperse plant parts everywhere, and it is being used in biofuels. It is native to the Mediterranean. This plant favors fresh water and moderately saline habitats, so it can take over our estuarine areas. It is growing in the edge of the Everglades with canals leading into the area. I think one of the worst things about it is that it uses massive quantities of water, and Florida is in a 3 year drought. Arundo has adapted to fire. It was introduced to California in 1820s or before. It wasn't recognized as a biofuel until recently. It's a sleeper invasive. It was originally used as roofing, production of reeds for musical instruments, etc. Some seeds are viable, but not all of them.

Switchgrass is native to Eastern part of North America and seems to be a promising biofuel. Switchgrass is twice as much ethanol per acre as corn. I wouldn't call it a biofuel for the west b/c it could be an exotic invasive there. Referred to in a DOE publication as providing the yield of dreams. It's a perennial, medium water requirements, slow vegetative spread, propagated by seeds, can be carried by the wind.

Elephant grass has been referred to as Johnson grass on steroids. Some are highly invasive, and others are not. Hybrids may be able to make this a proper biofuel. I don't know the ease of vegetative reproduction is in this plant.

Major research on biofuels (e.g. Jatropha, Chinese Tallow Tree, Arundo Donax, Switchgrass in various locations in the U.S.) is occurring. Soy beans is prominently used as biofuel in Brazil and the midwest.

A biofuel blog was talking about Chinese Tallow Tree, and he said he was planting lots of it in the South. Another person said not to tell the government b/c they will “run you out of the south”. The biodiesel movement is suitably out of control. I believe this after going through several of these blogs. There needs to be some monitoring going on as well as education on the species that are being touted.

There are many issues and pet peeves due to biofuel. It is something to be aware of (e.g. food prices, etc.).

Aldo Leopold recommends thinking like a mountain. When Aldo Leopold was a young man, he was a ranger out west and he saw a wolf on the slopes of the mountain next to him. He shot the wolf. He went up to the wolf, and it was still alive and looking at him with its intense yellow eyes, and Leopold felt a bit of remorse. Leopold realized later in life that the wolf was talking to him. Leopold was taught that wolves are predators that kill the deer. Then he came to realize that the population of the deer is controlled by the wolves, and the deer ruins the landscape and ecosystem. Only the mountain is there to see it there over the long term.

Lack of consideration for sleeper invasives (lag time problem) is likely. If it is economically useful that invasiveness doesn't matter. There is a lot of cherry picking of data – seeds are sterile, so no problem while the vegetative reproduction is ignored. You should go beyond the literature.

We should also see like an eagle, circle around the prey, catch it going in the right direction, so that we can single out the prant.

We should see like a hare. Rabbits and prey need to be knowledgeable and vigilant of everything going on around them. There is considerable promise, ignorance, and purveyors of snake oil. Algal based biodiesels seems to be the biofuel of the future. All of the others could easily become yesterday's technology very quickly if it takes hold.

Recommendations: first of all, we need on this committee someone from the biofuel arena. There is already an advisory committee for biofuels, and we need to have a voice there, and they need a voice here. Perhaps we should get a chemical engineer, maybe one who is working with Jatropha biofuels. We need to encourage the participation of DOE in ISAC. Increase and generate dialog on invasive species with DOE even if we can't get a representative.

We need to use homegrown stuff, not the stuff that will become an exotic invasive, discourage exotic invasives as non-renewable sources of fuels (make use of what's there as a means to get rid of them, but don't cultivate them for the purposes of biofuel)

Focus on cost-benefit analyses – This includes cost of monitoring and eradication of invasive species, and climate changes that can result in the plants becoming invasive. Don't lose sight of the fact that mutations occur. Something that is good can turn bad. There needs to be monitoring. With today's technology we don't want to eliminate any biofuel. We have several mandates, and we want to define criteria to determine that the plant will not become a problem. Thank you very much.

#### Questions and Answer Session :

No name: Great presentation and timely b/c I am in the energy business now. I just got back from the National Legislative Conference, and biofuels is being discussed. There is incredible pressure to look at alternative sources of power. Our governor announced another meeting in Alaska. Biofuels is a word that we are hearing over and over again. I am not aware of DOE representatives being present at these types of meetings. This is happening very quickly. It is the Wild West. Most of you here are paying 10 cents a kilowatt per hour. Biofuels are being looked at as a reasonable option. ISAC needs to get a connection with the Power Industry as well in addition to DOE.

Diane Cooper: I have been following this issue. Globally, what countries or a country do you see as the leader in biofuels or technology?

Answer: Germany with biogas, India, and Africa. Brazil is very big and may be the biggest in terms of one single country.

No Name: High energy content – do they know exactly what is the high energy content? Lignans, cellulose, is in what part of the plant?

Answer: In terms of biodiesel, we do have a lot of information. Castor Bean – 50-55% oil. You mix almost directly. Others are 40-45%. The sugar content of sugar cane makes it efficient to produce ethanol. Beyond that, I don't know it's not my area.

Celia Smith: Thank you Jerry for acknowledging biodiesel and oil from algal plants. 3100 species at the University of Hawaii, and they hired a systemicist. This is important

No name: I am concerned about economic research service response to ISAC regarding ISAC's recommendation not to use invasive plants as biofuels. The worry is that invasive plants will be reclassified as non-invasives. I don't see cost benefit analysis. I just see harm, and it seems to be a major problem to me.

No name: I listed 91 species under consideration of biofuels, I linked the species to a web-page. 88 of them are invasive somewhere in the world. One factor of a biofuel is a plant that is able to process CO<sub>2</sub> more efficiently. Though I haven't followed up, the reason we have sleeper invasives is b/c we are elevating CO<sub>2</sub>, and some species can make use of the CO<sub>2</sub> and become invasives.

No name: Weed science society of America has a position paper out on the use of biofuels. They mention great caution with Arundo Donax, and they site examples that were one cultivated that have become invasives like Johnson grass. Dr. Jackson said that with the conversion of cellulose or starch to sugars, you produce ethanol, which has the 70% power compared to gasoline. Enzymatic processes are still too expensive. From the chemical engineering side, you use high amts of heat to produce molecules, but it needs high amt of fuel itself to create (hydroxymethylfurfanol - HMF). When you hear about people making HMF from cellulose, this technology is going to explode. HMF has the same energy as gasoline, this is why the technology will explode.

No name: I agree. My son and I drive a prius, and we did an experiment of our own. When we run 10% ethanol, we got 10% reduction in the mileage over gasoline due to the lesser energy content in ethanol.

No name: We need to take a strong stance, and one way we can think of is a plant that we perceive is no longer invasive b/c it is such a good biodiesel source. I am wondering if they have lost sight of the risks. At any rate, I don't know if this is useful.

Katherine: Some folks may be aware of the Council of Sustainable Biomass comprised of USDA and Forest Services and conventional industry representatives and other groups. Their focus is the full range of implications of biomass. The goal is to work together to create sustainable biomass production along with regulatory recommendations, and they seem to have the right people in the room. They are working on coming to agreement, and if anyone is interested, let me know and I can link you in.

Facilitator:

Jerry, great presentation. Let's distill this to an action item. Do we want to put together a task force to distill this information? Let's get something done about this and make a recommendation.

Those that are interested should distill down to two recommendations. Jerry, are you willing to grab a couple of people to put together a recommendation.

Jerry: I would be happy to.

### **ISAC Administrative Issues (PART 1 – it gets continued later) – George Beck, ISAC Chair**

We have a couple of administrative issues to deal with.

Bylaws – there was a change made, and it is a relatively minor change. If you look under item 4, tab #7. This is for everyone's information (don't have to take any action): Section 4 of the bylaws dealing with meetings. - a quorum will consist of a simple majority of ISAC. Section 5 states the majority of ISAC members present must vote in favor of any measure voted upon. The issue was "simple majority", so instead of

members “present”, it was changed to the majority of ISAC members must vote in favor of any measure. Let’s vote on this amendment. Motion, motion accepted. There’s a question – “We need 15 for a quorum, 15/of the 16 must vote in favor”. The way it was written is that if half the committee was present, then 8 votes in favor could pass a motion. A lawyer reading the initial language would notice this. All in favor, say “Aye”...

Everyone voted in favor.

Next – Because there are nine of us leaving, which one of us is an officer? We need to appoint/find volunteers to serve as acting officers for the next meeting. The next meeting ISAC will elect the officers. Let’s go to the next item until the people get here.

Do you guys have your calendars?

Chelsea: As you look at your calendar, the fall meeting has to be after the fiscal year – preferably November or the first week of December. We’d like you to pick a primary week and then an alternate week for spring of ’09. The date should be after the last week of October and before Christmas. Let’s do the week of November 10<sup>th</sup> in the Washington area, for two days. This doesn’t work. Raise your hand if you are available during the first week of November. Raise your hand if you are available the second week of November. Raise your hand if you are available during the third week of November. We are going to go with primary dates Tuesday and Wednesday, November 18-19, 2008. The alternate date will be November 5-6, 2008. The location of the meeting will be decided up on at the next meeting.

These dates do not conflict with the Aquatic invasive species meeting b/c this meeting will be held in October 28-29, 2008 in D.C..

Let’s get back to the acting officers issue: Typically we have people volunteer as willing to serve an officer’s role. I have asked some of my people who are willing to coordinate the election. We have a chair, vice chair, second chair, secretary, and treasurer.

So far we have a few volunteers, but we don’t feel like we talked to everybody. So, is there anyone else who is interested? If you are interested, please come see us. These positions are only good until November 2008. 2 people are interested in the Secretary position.

How many people are currently on the steering committee? 3 people are on the steering committee, and we need 3 more volunteers to participate on occasional teleconference in the afternoons 3-5 Eastern time. I think we are ready to move on.

Alright, we have a list of initiatives. We’d like you to circle 7 letters, and you have a few categories, circle a-f. If it’s a separate letter, it’s a separate item. Pick up to 7. This will give us valuable input, and that’s it.

I will turn this over to John Peter. (Cynthia, it appears they switched the order that was outlined in the agenda b/c John Peter was scheduled later on in the agenda).

**(Agenda Order Switched here – 5/14/08 at approximately 2:00:00) Review of Day 3 Items and Final Recommendations to NISC – John Peter Thompson**

Yesterday I optimistically thought that following Lori, my recommendations would sail through w/out controversy. Due to budget issues, my recommendations got mired down. I asked for input, but b/c we have turned into squash or pumpkins, there was little to no input by non-ISAC members. I am willing to try this again.

What is going on here? I believe that industry still has a role to play in invasive species policy and regulations, and when industry and state governments talk, the Federal government gets confused and does nothing. They seem to let the stakeholders talk it out before they get into things. So, getting major stakeholders (nature conservancy, American Nursery and Landscape Association, the agricultural research service of USDA) sat down with the Feds to identify what they do agree on. They sat down during a 2 day discussion and agreed on scientific research that should be funded, ongoing, and is necessary. Based on this information, I submit 3 recommendations to ISAC to send to the National Invasive Species Council (NISC) members. Remember this is a partnership of private interests, land management, environmental interests, horticulture, and the US government in its ability to supply information, guidance and scientific research. Given this, there are 3 things that came of the meeting. (1) the participants believe as we use science to make policy decisions, we need the federal government and interest groups to support global scale research/processes (e.g. climate change, but not limited to climate change). If you're going to set policy, perhaps you should have some fundamental information on the effect of global processes. So, I am asking you all as members of ISAC to send a recommendation to NISC to the extent possible, supporting global scale processes. I have crossed out climate change b/c they are too specific. The people who mentioned this to me, are interestingly not ISAC members.

I'd like to address the other recommendations one at a time: The other two recommendations I will discuss has to do with (2) systematics and (3) high industry – science based evaluation of benefits/harm from invasive species. Specific plant research could range from transgenic to hybridization. The hope would be that decisions would be made in a science based process.

If we could go back to the first one, I want to emphasize I am looking for a recommendation for awareness of global processes in decisions.

Katherine: Thank you for leading this effort. On the paper, there's nothing that causes me any degree of concern. The Nature Conservancy was confused as to why they were to attend a meeting. Initially they wanted to get involved with decisions related to cultivars. That the meeting is so much broader is fine to them. They felt they weren't the experts on a lot of the issues, where some of the colleagues would be better suited for attendance.

No name: Will there be any explanation noted with the recommendations? Let's not limit ourselves to global warming. Will people reading this know what a global process is if we omit "global warming" as an example. Maybe we ought to list global processes should be considered, or define global processes to make it clear to the reader.

No name: I'd like to suggest if you're going to cut out climate change, global scale processes is too broad, change this language to global change or human caused changes on global scale processes.

No name: Perhaps, put back original wording "such as global climate change". There are several global scale processes that fall within global climate change as well – processes related to global change (e.g. anthropogenic issues).

No name: Invasive plants and animals and their environments should be used rather than simply "invasives".

No name: Part of the confusion would be cleared up if we could clarify by saying "the global impacts on invasive species". If you look at sentence 3, effects of global scale processes, please edit.

John Peter: Yes, you are correct, there is a word missing. I will edit.

Can we go over this at lunch to edit, since making it available for comment hasn't worked.

Actually I am happy with this.

ISAC recommends clarification of "impacts of global scale processes on invasive species".

John Peter: I consider this a friendly amendment and will make the amendment.

(Katherine reads text aloud to see how it sounds)

No name: One more change: "impacts of global scale processes (such as climate change) on invasive species".

(Male reads out loud to see how it sounds)

(Female reads out loud to see how it sounds)

Motion, Motion seconded, all those in favor say "Aye", everyone agreed. Motion accepted.

(2) Systemics – Cultivars and invasive species

It is important to know what you are talking about when making decisions regarding Cultivars and invasive species. As we go about identifying potential invasive species in

the regions, horticulture and other impacts are affected. This is much broader than horticulture. We need taxonomy and systematics and knowledge of what is out there.

ISAC recommends that NISC members assess currently available systematics research capacity, identify strategic gaps, and provide targeted support for systematics research. In addition, ISAC recommends that NISC members enhance interdepartmental integration and coordination of the United States scientific systematics infrastructure. Motion, Motion seconded.

Female: I recommend changing language for part of this:  
“...currently available systematics research and training capacity.”  
John Peters finds this a friendly amendment.

Agency representative: Can I make another recommendation? All of the word-smithing flies over people’s heads. I want to make sure that you know budgets are tight, and that the words here fly over the head of many of the folks I am dealing with.

Chuck O’neil – 1. change to “...currently available systematics research and training capacity as it pertains to invasive species.” 2. change last line to “...invasive species scientific systematics infrastructure.

John Peters finds this a friendly amendment since he is targeting invasive species.

Male –I would start off with the ability of NISC members to identify things b/c that is what they will understand. ISAC recommends that NISC members assess their current capabilities to identify the species of plants and animals that they are involved with and keep the rest of the ideas that are there.

John Peters – I understand what you want, but I am lean on what exactly the wording is that you want.

Male – “ISAC recommends that NISC members assess their current capabilities to identify the species of plants and animals...” – Just insert this in what you have.

Male – Eliminating “their” is argued b/c that is tasking it to them.

John Peters – It will read “Assess currently available systematics research, training, and/or identification capacity.”

Male – you might want to say species capacity.

John Peters: It will read “Assess currently available systematics research, training, and/or identification of species capacity.”

Female – read the whole recommendation again.

Male – I have a concern with inserting invasive species b/c the plants are not categorized as invasive species immediately. They are non-native plants, and then later on down the line they are identified as being invasive. I am sorry I don't have exact language.

Male – you are correct to have concern, but the consensus is that they wouldn't segregate this.

Male – we are going to have to conclude this later b/c the speaker needs to give his presentation (Denny Lassuy from FWS will make presentation now).

### **The Implications of Climate Change for Invasive Species in Alaska – Denny Lassuy, DOI/FWS**

Hopefully I'm close enough to the speakers. Well, we've heard almost every Alaska speaker in one way or another regarding climate change. So, I'm glad I have the opportunity to talk about the implications of climate change on invasive species in Alaska. Alaska considers it a land of superlatives – whether it be habitat, or other things, there is a lot worth protecting. Alaskans are getting to be as bad as Texans about bragging and the superlatives we have.  $\frac{3}{4}$  of refuges, not quite  $\frac{2}{3}$  of US wetlands, 3000 miles of coastline, 3000 rivers, no endangered fish, so lots of superlatives. But, 90% of ballast waters is largely unregulated and experience roughly 6000 transits per year. We are an epicenter for climate change and potentially energy development as well.

There is opportunity for trouble in paradise. In 2001, UCS included in a review that Alaska has done some wonderful thing to protect the native biodiversity, but they noted invasive species as a threat to all of these things.

Alaska is a hub for transport. So, all of the risks associated w/ trade and transport are crystallized in Alaska. This group doesn't need a lecture on why Alaska should be concerned with invasive species. I was stunned that our mudflats are extremely important for migratory birds and feeding fish. Besides ecosystem wide impacts are impacts on species. The role of invasives is an issue for tremendous concern. What is the heck is link to global warming?

I'm not going to talk much about climate change, that's a whole other field of science. It's a reality globally and in Alaska. Glaciers are receding, etc. The link between climate change and invasive species along w/ the application to Alaska is what will be made. Climate change would favor invasive species in Alaska and exacerbate Alaska ecosystem concerns outlined earlier.

Examples – particular species and how it could matter – most of them are aquatic based, and some are somewhat more terrestrial species. The bottom line is that we don't know yet but we suspect what will happen. So, instead of definitive examples, these are situations where maybe they are related to climate change, although references cite likelihood. The species that are not yet here in Alaska are on the left. The others that are here are on the right.

Mitten Crab currently in California has been spotted. There's a grad student at Portland University who nearly completed his dissertation, and if you imagine temperature cutoff level for the species to thrive, the needed temp to complete its full life cycle is just below that imaginary line. The dissertation models have predicted that with small temperature changes, that Alaskan water will become susceptible to invasions of Mitten Crab. Salmon and Trout will be affected negatively as well.

Tomorrow you'll be going to the hatchery, the first place where whirling disease was found. I don't know if its appearance had to do with climate change. This was the conclusion made from this research. To the Alaskan fish and games credit, when they found evidence that the pathogen/disease was here, they changed their practices at the hatchery.

One of the sites you'll be visiting tomorrow – The botanical community in Alaska decided in the 1980s that there was a plant that was not an invasive threat at the time. Well, in late 2005, a citizen reported the plant, and in less than a week there were around 15 people (gardeners, state, federal, etc.) organizing a “weed pull”, got publicity for the “weed pull”. This was an extraordinary example of collaboration. Again, I don't know for sure if it became a problem b/c of climate change, but it appears that this is the case.

European Green Crabs are highly invasive, and cause extreme problems w/ native species. Alaska has native crab species that are threatened by the European Green Crabs if they make it to Alaska, and this will affect Alaska's economy in a negative way. Based on the work done at the Smithsonian, models indicate that a portion of the gulf of Alaska and up into the Bering sea area (the prime harvesting area for King Crabs – this is a concern), that the waters are now barely warm enough to put Alaska at risk of European Green Crab invasion.

Rats, we have rats in a statewide management plan. Alaska Fish and Game put together a comprehensive plan to deal with rats. With increased temperature, there is more of a concern. The concern here is that with increased warming, more wild areas (rather than human dwellings) will have establishment of rat populations.

Something I put in the “absolutely going to happen” category is a concern with “(couldn't make out the word- I think Tuna Kit??)” occurs extensively on the northeast coast of the United States. It is a focal concern and found in peugeot sound. A number of invasive marine species including this one has been found in bits and pieces. Under experimental conditions, this species is enhanced by global warming. If you're a benthic critter, get there first, and grow faster, you're going to dominate. This is what happened with the Tuna Kit. In addition, the native species grew slower with increased temperatures from global warming. So, not only are we aiding the invasives, but we are hindering the natives with the higher temperatures that result from global warming.

The susceptibility of Yukon River Salmon are more susceptible to disease b/c of the warming trend in the Yukon.

I am going to jump to some modeling work on plant species. This is from interesting work from a Elizabeth's dissertation. The current single invasion point and its current estimated distribution with moderate warming (on a powerpoint that this guy is referring to) is here.

An interesting piece here is that, look at the southern end of the distribution of the species. Some people would say that it's appropriate b/c Alaska, like Australia is where all the trouble-makers end up going, so the invasives keep us good company.

I basically talk about temperature, but there are other factors as well, and honestly we just don't know. Frequency and intensity of events – this picture is from fire in 2007 in Alaska. I now work with North Slope Science Initiative regarding energy development and climate change. It's sort of the epicenter within the epicenter in terms of the effects. The fire on the north slope is rare in general and small. The amount of acreage in 2007 burned tripled the historic acreage on the north slope, could this be from global warming? That essentially tells the climate change story and the other things we are concerned about may affect Alaska.

In Alaska, the major drivers are port and harbor development, natural gas development, the pipeline corridor itself would be at risk. If the Natural gas ends up liquefied and sent to China or India, we are talking a lot more vessel traffic. There is the potential for more oil and gas development. If we end up with more mines, this is a driver as well. Roads are also a consideration.

This is another set of data borrowed from Elizabeth. This is a subset of invasive plant species in Alaska, and this line to the roads (Canada to Fairbanks, the road to Fairbanks, the Parks Highway, and more references to the map in the meeting). Look at the clusters. Talk about a defining vector. I've gone beyond climate change.

It's important not to think about a single species, single vector, but the operational process.

There's a very large mine proposed in the Bristol area and more. If the mines move ahead, we don't have all of the equipment for it. How is the equipment going to get there?

Shipping activity and ballast water in Alaska links back to Alaska as a transportation hub, and there's the potential for new shipping corridors.

I was really pleased the news that you brought back to us, Marilyn, bc if we see an increase in offshore gas development there is a concern – we know we have some invasive species like tuna kits, so even redistribution of gear in Alaska presents a risk of secondary spread. The bottom line is to plan for it.

Summary of the position Alaska finds itself in with respect to invasive species: Our most effective action is the prevention of the first occurrence. Bottom line, we are not slowing global warming in a huge way anytime soon, so focus on prevention, detection. Don't sit on your butt. Get at it now in any reasonable way. We have realized stuff is going to move towards us from the south, but now from the north as well b/c of climate change.

Thank you.

Question/Answers

Female – Thanks that was interesting. I think that bc we've had so many problems, we have a good opportunity for demonstrating examples showing the situation and how it was addressed.

Denny Lassuy – I want to clear up a false impression about Alaska and the situation we are in. People have the opinion that Alaskans are sitting around waiting for a big check from the government, and this is not the case. I think the plea really is just to recognize the uniqueness of the priorities and challenges and to work with us in a way so that Alaskans can have access to the same options to address the problems. I just wanted to give this example in case this was the misperception. You are right about the demonstrating opportunity. I recently got \$10,000 for an acre invasion, and I wouldn't have been able to get this without the example. Using examples won them over.

Male – Earlier today Graziano gave me a remarkable insight about this – it would be helpful in advance to designate particular sections of refuges for special protection (refuges of the future). It reminded me of the best slogan so far for conservation from the Nature conservancy, although they retired it. "The last of the least and the best of the rest and some of the safest", and I think this is a great insight on his part. There is a part of the refuge program an effort to focus on corridors and try to allow ecosystems to shift to the extent that they can. That is long term planning with political and financial nuances associated with that.

Denny – Thank you very very much all for coming.

### **ISAC Administrative Issues (PART 2 – Continued) – George Beck, ISAC Chair**

George Beck, Chair – Welcome back from lunch. It's time to deal with the Administrative issues that we postponed earlier.

We have 2 candidates for each position. I hope everyone realizes this is an acting situation. We will circulate a ballot, and mark them. Gary, why don't you go ahead and give your speel.

I do a column in our newsletter. So, anyway, one of the interesting things I've experienced in the years I've been in the ISAC is to see the issues that we run into daily

kinda coalesce and come together. Over the years, we've had conversations regarding the importance of native species, grasses, and more. We have a significant program in Minnesota. And then, we talked this morning with Jerry's excellent presentation about biofuels, this has come together for us in the native grass program. When the seed comes into the field and gets harvested, the amt of material that goes in has 25% use and 75% discarded. WE have worked w/ some of our major producers, where they are able to take the 75% discarded to go through gasification to produce enough electricity to run their plant for a year. This makes an awful lot of sense. It cost \$300k, and it pays for itself in 3 years. We got an energy grant to take the excess energy and put it on the grid.

I'd like to give a brief report on the Minnesota invasive species council. We do have a council, and it has industry representation and authorization to provide that co-chairs from DNR and Dept of Agriculture. Unfortunately, the DNR and the Dept of Ag is not always on the same page. As a result, there isn't very good communication. The personalities involved have been an issue. I have circulated calendars with ISAC, and this year it has been developed by DNR. The same day the calendar went out, one of the grasses was an issue – resulting from communication problems. We do have a good program now, for restricting important movement. With that, I'll pass it on to Peter.

Peter: Given the amount of time spent on my resolutions, I'll pass and I'll be back.

Male: 1. I met with Peter Scott regarding really cool work. My impression of a compendium goes back to graduate schools. The problem with Compendia is that they are dated before they are printed. I have no idea how much it will cost.  
2. In two weeks we will have the rocky mountain weed summit. There is a problem getting things through Congress, so we need to do it ourselves. So, we have invited our governor to be a part of this to assure his presence is going to move other governors to come (governor of Idaho). 3. White paper submitted to Joe Tomasso at UC Davis and he excited about publishing the white paper. This is my last meeting, I have to express disappointment that our whitepaper has still not been adopted.

Female: If you send it to the agencies, they are going to edit the heck out of it. We couldn't figure out a way to get around that.

Male: The crowd will understand "that's it; it's published".

Bob McMahon: Once it's published, people will start citing it, it will become kind of the Bible, which is the best for that.

Female: Unfortunately the world is not small enough. It's interesting that WSSA had a long discussion about defining invasive on that committee. Why don't we just adopt NISCs or ISACs definitions. They didn't. George, I think you need to get on that committee.

Ken Zimmerman: Thank you Bob for all of your work. One of the things that became clear is that if they found a boat that was carrying a suspicious organism, they didn't have

any provisions for cleaning that boat, and these boats come from a long way away. What happens if we do find this? Give inspectors tools to take care of this and make recreation fun at the same time. CA dept of Forestry – we sent out to weed mgt areas and agencies policies for cleaning vehicles, and I'm sad to say there is no official policy sent back to us. They have sent suggested guidelines, but no regulations. If anyone has regulations, if you could email them to me, this would help me.

Female: I am interested in the federal as well. BMPs for cleaning vehicles are important.

Chuck O'Neil: on July 15-16, there will be a meeting in Utah targeted specifically to people operation water systems and reservoirs. It's the first step to a water systems user workshop.

Male: Detailed instructions are available for cleaning land and tanks. It's ironic that there's fear of the zebra mussel, and we've been dealing with it for 15 years.

Male: One of the issues w/ the forest service is analogous to ballast. What are the cleaning standards for equipment? How clean is clean enough? Some use water, some use air. I don't know where the status of those conversations are at this time, but I know they were struggling with it.

Chair: Time to move on to something else. Think about the theme for the next meeting. As far as the steering committee goes, we have 2 people for each officer's position. Jennifer is preparing a ballot right now. She is ready to visit with Ann. We will deal with that in a few minutes. We have a name of a restaurant for those of you who want to go. On a break we can figure out who wants to go where so we don't have to eat at McDonald's.

John Peter: I'm back. The last time I spoke today it was a discussion on systematics and a recommendation about systematics. Lori has the current wording.

Lori: (2) "ISAC recommends that NISC members assess currently available research training and/or species identification capacities, identify strategic gaps and provide targeted support for systematics activities pertaining to invasive species. In addition, ISAC recommends that NISC members enhance interdepartmental integration and coordination of United States scientific systematic invasive species infrastructure."  
[Cynthia – note that this version is the final version after all of the discussion below regarding this important quote 4:01:35 for the file dated 5/14/08 – everyone agreed to this final quote after the motion was made to accept this.]

Paul Hoffman: Can we just ask Agriculture to do this? Why don't we just direct this recommendation to Ag. They are the logical repository for this information.

Jerry: It seems that all of the agencies have some responsibility with respect to invasives on their lands. With the interior, there are a lot of lands. People couldn't even recognize an invasive if they tried. We need more people on the lands who can identify the plants.

Instead of systematics research, I would change that to systematics activities including research and identification.

Burl: I agree that each of the agencies has some responsibility to address invasives on their land, but I'm not sure that all of the agencies have the skills to identify the invasive species.

Bob McMahon: ACOE, USFWS, etc are agencies. I hate to eliminate a good number of agencies that do have to deal with this problem.

Talitha's side note: The discussion reverted back to the quote that Lori made, and minor changes made, and the quote that I have for Lori earlier is the final, approved recommendation after all of the discussions.

Jerry – I foolishly thought the first two recommendations wouldn't take a lot of time, and that we'd get bogged down w/ the third one. The third recommendation for NISC to agree to and recommend: Here goes the third one - "ISAC recommends that its NISC members consider actions and research concerning the science based evaluation of harm/benefits caused by invasive species in addition ISAC recommends that NISC members consider actions and research concerning the development and evaluation of alternatives that avoid/reduce the negative impacts of invasive species."

Peter #2– I'd like to suggest harm/benefits caused by with "impacts of" – b/c I don't want to open the door to cost benefit analysis in view of the ERS suggestion that an invasive that has sufficient benefits would become non-invasive

Chair – any other comments on Peter's change?

Tim Carlson – Aren't all agencies required under NEPA to do that evaluation with respect to the law?

No answer...

Earl – I'm a little confused on the 2<sup>nd</sup> sentence. What alternatives are we talking about? Alternative species, mgt options, or control measures?

Peter – The answer is it possible to have a sterile cultivar usable, but I didn't include this b/c I wanted to make it as broad as possible. I am asking for support for research support for alternatives, and the list is open ended and infinite. I don't know where research would go in the world of alternatives.

Tim Carlson – ARS wants to release a new biocontrol bug. Do we release it or not? What are the impacts? This is through the NEPA process. If we are looking at plants that are sterile or not, or might be used by USDA as a biofuel, wouldn't they be normally be going through the NEPA process?

Paul – Research that provides the science. NEPA doesn't provide the science, they use the best available science. This is developing the research and science to help inform the NEPA process.

Male: These alternatives refer to develop something that is sterile that wasn't sterile before. This is not a NEPA process.

Male: We are overcomplicating this with respect to NEPA terms. Can we fix this alternative species and/or actions.

Chair: If that clarifies it, I am happy with that.

Male: What are research priorities? Are cultivars research priority?

Jerry: I don't want to say what is the priority. We have a huge gap in knowledge. The science hasn't caught up with us. Maybe the science should be at the same place our instincts are. That's the heart of what I'm trying to do here. There are gaps climate change, to fish-farming, etc. I am coming at cultivars, but this is bigger than cultivars for an urban landscape.

Diane Cooper: I appreciate what you're trying to get at. It seems broad. I'd like to narrow it down a bit so that it is not so open ended that it leaves room for doing nothing. Maybe we should specify a bit. It seems that NISC members are required under an Executive order or NEPA – decisions should be science based. So, this is why it is so broad, that they may tell us that “we are already doing this”. We won't get much more unless we are specific. If cultivars are the issue, then we need to say this. We talk about invasive species lag time issue with invasives and recognize this as a possibility and reality. Can something be invasive today and not invasive tomorrow? This is embedded in the recommendation.

Richard – NISC staff. If a new cultivar or new sub-species, or new species is imported to the US, NEPA is not triggered. If industry develops a new cultivar, NEPA is not triggered.

Chair – We need to wrap this up.

Bob McMahon – I suggest “alternative species cultivars and/or approaches”

Final version of the Third recommendation: “ISAC recommends that NISC members consider actions and research concerning the science based evaluation of impacts of invasive species in addition ISAC recommends that NISC members consider actions and research concerning the development and evaluation of alternative species, cultivars and/or approaches that avoid/reduce the negative impacts of invasive species.” - Everyone was in favor of this recommendation.

Chair – here’s the other part of the business. In 15 mins we are taking a break. When we get back, we’ll be getting together for subcommittee meeting. We also have 3 more recommendations. We have two from Peter. Peter come on up.

Peter – There were many problem species in Alaska and it’s hard to get support for the plant species that are already uncontrollable in the lower part of the state b/c they are already classed as uncontrollable. Some thought it was too narrow (e.g. Guam and Wisconsin), and some thought it was too broad (need to increase funding from EDRR for AK). So, it’s split, and that is why there are two recommendations (one narrow and one broad). I will read them both.

- Narrowed version: “Alaska presents a unique opportunity to use early detection rapid response to prevent establishment of invasive species thereby avoiding losses to natural resource productivity and high expenses of controlling invasive species after they become widespread. However, federal agencies in Alaska have received inadequate funds to respond to the opportunity for managing invasive species as levels received by Federal agencies in Alaska are also consistently lower than the levels received by other states. ISAC recommends that Federal agencies take advantage of the cost-effective nature of EDRR by increasing USDA, DOI, and NOAA support for invasive species management in Alaska.”
- Broad version: “Invasive species that are now widespread in some regions of the US are often not assigned high priority for control b/c control now appears impractical in those regions. However, these species are absent or rare in other regions where control remains practical and could be facilitated by assigning high priority to the species. ISAC therefore recommends that there be special mechanisms within agencies such as USDA, DOI, and NOAA for assigning high priority of such species specifically in support of early detection and rapid response in regions where the species is not yet widespread.”

Male – for example, Alaska presents a unique opportunity. I think the Alaska delegation wants their name is brought up. The principal remains the same for Guam as well. This way, you can wrap it up all in one.

- Jerry incorporating comments to the Broad version with Alaska mentioned - “Invasive species that are now widespread in some regions and insular areas of the US are often not assigned high priority for control because control now appears impracticable in those regions. However, these species are absent or rare in other regions where control or eradication remains practical and could be facilitated by assigning high priority to the species. ISAC therefore recommends that there be special mechanisms within agencies such as USDA and DOI for assigning high Federal priority to such widespread invasive species specifically in support of early detection and rapid response in regions where the species is not yet widespread. For example, Alaska presents a special opportunity for early detection and rapid response (EDRR) of invasive species now widespread in the lower 48 states” [applauds] presented as a

motion, it was seconded, [Talitha's side note - there were issues as outlined below, and I already incorporated them in the above approved quote].

Male – US and territories recommended b/c some areas are not states.

Female – Other states have their own ways of dealing with this.

Male – It doesn't say anything about the problem, it doesn't mention of funding. Should we be specific in that is what we are requesting or is this understood?

Chair – Everyone has a copy of that?

Jerry – what you have there is on the screen, it is not a copy of that. I'll put them on the screen.

Chair – Do you have this in a more succinct form?

Jerry – yes.

Jerry: 2-3 of us got together, I quickly put this together that condenses the 9 down to 5. These are actually items on biofuels for staff and NISC to do.

Jerry's 5 action items.

1. "ISAC recommends that NISC appoint a representative from biofuel community to ISAC, encourage participation of a representative of the energy industry, and increase discussion on invasive species related to biofuels." [removed "encourage DOE participation in NISC", since this recommendation has already been made.]

- Male: DOE needs to be involve with NISC.

- Lori: This was already in a recommendation that we sent out last week.

- DOE rep: We can't have DOE on ISAC.

- Lori: Can't have a Federal member of energy on ISAC. Rather – you can have a representative of the energy industry.

- Male: take out encourage participation of DOE in NISC b/c it has already been encouraged.

- Chair: We have a jam-packed agenda, and what we are doing is eliminating our break. We are close to getting into our subcommittee mtg. If you feel this is more important, fine. We run the risk of running late tonight. It doesn't matter to me. Shall we shlog forward?

- Male: Yes, shlog forward.

- Female: recommendation w/respect to the 1<sup>st</sup> action item. We need to reach out to other forums where this issue is being dated in the Federal government, and I would encourage us to find out about these forums and become a member in these forums, particularly the forums that are using crops for biofuels.

2. "ISAC recommends that NISC members encourage the use of potential biofuel plants that are native to the specific region in which they are to be used." THIS WAS SCRAPPED PER DISCUSSION BELOW.

- Male: I agree it would be better to use native plants than to introduce other plants to the areas. There are problems even with using native plants as biofuels. I'm not ready to make this recommendation.

- Male: I agree. How would we change that or would we change this one?

- Male: ISAC recommends that if biofuel plants are to be used, NISC encourages the use native plants.
  - Male: I'm uncomfortable with this line of reasoning b/c of climate change. It's making a recommendation before the science is in. I find this problematic from a philosophic point of view.
  - Female: I agree w/ John Peter b/c you're discouraging innovation for biofuels. This is like saying don't do stem cell research. I don't think is appropriate in any way no matter how much wordsmithing.
  - Female: We need to give a list to energy folks not what they shouldn't use. Anyway, the industry needs assistant what they should do as well.
  - Bob McMahon – action item 2 is covered by 3. Let's talk to DOE about this at our meeting.
  - Conclusion – Scrap action item 2.
3. We've already done this one at a previous meeting.
  4. "ISAC recommends that NISC members encourage the use of exotic invasive plants as non-renewable biofuel resources as part of efforts to eradicate the invasive species to remove them from surgical strikes focused on eradication without dispersing seed or vegetative propagules." AXED – SEE DISCUSSION BELOW.
    - Male: I'm concerned it would create a market for invasives.
    - Bob McMahon: It is problematic moving invasives from one location to another. It's best to get rid of them on the spot with whatever control method that is used.
    - Male: Maybe there could be a market in cleanup. However, I'd find it trouble voting for this one. I think the science isn't in yet, so we are instinctively suggesting the right thing, but I'd like some science to go along with it.
    - Mr. Dickerson: No pro/con on this point. If it's regulated invasive, so hopefully the movement would be safe and you'd do more good than harm.
    - Ken Zimmerman: What's an exotic invasive? Is it an invasive species?
    - Tim Carlson: I get calls from people about invasives using as fuel stock. It's already being done. People and USDA are looking at this.
    - Jennifer Balmer: Russian Olive –you can do this. However, for other plants like Arundo, you need to treat the leaves, and re-treat. For some invasives you can do this, and for others you can't.
    - Mr. Oneil – I have a problem with this. There is a knucklehead factor. If you harvest one location of it, it will turn up someplace else b/c someone is going to see a way of making money or they'll see someone else making money. It'll become a black market of what you initially want a non-renewable resource.
    - Male – I agree with comment to the left and to the right.
    - Female – not a lot of support. Axe it.
    - Multiple members – agreed.
  5. "ISAC recommends that NISC members require cost benefit analyses of potential biofuel resources, include cost of monitoring of biofuel species, potential cost of eradication invasive biofuel species, the prospect of expansion as a result of climate change"

- Tim Carlson – I think that by nature a cost- benefit analysis covers. I would end it early. “ISAC recommends that NISC members require cost benefit analyses of potential biofuels”.
- 2 males – debate the field of environmental economics and if they will be able quantify this or even think of.
- Female – I’m curious – how are the departments going to require this? Is there a permit required to use biofuel resources? It sounds like a cowboy biofuel rodeo happening without an institutional infrastructure.
- Peter Alpert – Sometimes there is an assumption it is ok to use invasive species for biofuel. I don’t agree with this assumption.
- Male – non traditional crops have been funded for biofuel research. OK, what is the economic impact of what you are trying to do? It goes well beyond invasives. What happens long term when you are removing the organic materials utilized by the crops? Economists should quantify this.
- Male – I think this issue is too big to finish up this afternoon. Jerry’s issue is a big issue, and we can’t solve it this afternoon. It should be a white paper that we should work on. I don’t think we should slam it through before the subcommittee mtgs, and it’s too important to get through in the next 5 minutes.
- Male – have we decided on a theme for the next mtg.?
- Male – we need background information. I don’t want to make a decision in a vacuum.
- Diane Cooper – If you go down this road, bring in somebody who knows about biofuels for the discussion. Jerry’s presentation is very provocative. Maybe have a private company give a presentation.
- Chair – in the interest of time, this is very important and we don’t want to short circuit. The suggestion is to develop a white paper. One option is to table this until the next meeting b/c of the importance. Perhaps this could be the theme for the next mtg. I got a lot of head shakes to table this until the next mtg. agreeing to this. Everyone remembers the subcommittees they signed up for, but I have list of who belongs to what.
- Everybody cooperated well. Ken Z- pres, Amy Frankman – Secretary, and we just need one more.
- Chair – the train is running down the track w/ no one at the helm. We are breaking out into subcommittees now – they include:
- Female – while everyone is getting their ballots, I have an announcement, take a break while you head to your subcommittee.
- Chair – potential confusion, so subcommittees prevention, EDRR, control and management now respiration, organization and collaboration, communication, education, and out reach, research management. Options – e.g. EDRR has 3 tasks - I don’t want to deal with these tasks today. Decide this as a subcommittee, and this is ok. He goes on to outline the tasks outlined in the last meeting, but each subcommittee decides if they will address their tasks today.
- Lori – discusses where each of the subcommittees will meet.
- Chair – logistic questions. People have signed up for more than one committee. Locations will be problematic today, but just for the logistics at this meeting, so make a choice if you are on multiple subcommittees.

## **Subcommittee Reports – ISAC Subcommittee Chairs**

### Prevention: Diane Cooper –

There were 3 of us in the mtg. today. First point – prevention is key, so it's disconcerting that there are only 3 people on the subcommittee. Bottom line – I am leaving, Richard isn't going to be on the sub committee forever. They need some more help. Bob will talk to some of his contacts to solicit someone to take the lead on prevention and aquatic issues. He will work on finding someone to chair the movement.

Aquatic nuisance task force took over the work, ISAC members have joined, and we get reports from Richard, but it has been outside of ISAC. The groups have done good work, and the screening group needs to do more work. Bob will lead this effort for prevention of aquatic and terrestrial invasive species.

Prevention committee oversees 3 screening groups – one of the groups is the aquatic groups, and the other two are moving forward as well. Does ISAC want to get more involved? We need some ISAC people dedicated to this work.

Bob is on the committee, and he says that he agreed to find a potential leader for the screening group. We need to obtain new members and have the new members vote on leaders. Some members are in 2-3 committees. Perhaps, we should pick just one that we really like. The chair says its completely up to ISAC.

### EDRR:

We are making an effort to develop MOU for EDRR with agencies, developing local infrastructure for enabling EDRR. If you have to wait for EDRR from Federal government, then you're toast. We need to come up with possible infestations to help out to have a quick turnaround. The MOU is in front of the solicitor's office and hopefully will be done in the next month or so.

We are the only committee that has members of the public b/c we are cool. If there could be a de minimus standard – if money is available for small projects for commonsensical things would be good rather than having to go through a whole proposal process.

### Control Management

Chris Earl – concentrated on one area.

Female: Long term view and long term funding is important. If we are going to create a disturbance, we need to re-establish and restore aquatic plants to protect native fish species. Key – ensure that the management of non-natives is promoting the Native species.

### Organization/Collaboration

Female: We are going to investigate regional meetings. We will do it in the next year. Prepare packets to ISAC mtgs to hand out to people at any other meetings that ISAC members go to. There's a possibility of getting native plant centers together this year. We will follow up with a conference call in the next month.

Male – Our committee agreed to umbrella “outreach and education” as well.

### Communication/Education

Important issue to ISAC. Emerging issue id’d what is the role of CEO under the new plan? We considered merging some of the subcommittees. Gaps – more active national invasive species campaign w/ a web-site. Need a NISC fulltime employee for CEO work. Tough, perhaps find a volunteer? Education sites for classroom activities linked together for teachers is something we would like to have completed.

Chuck Oneil – As a long timer, good job! It’s a really good looking site.  
[applauds]

### Research/Info mgt

Female: 6 people rotating out. Please join us. 3 issues – 1. summarizing pertinent biofuels and supply to the group. Parallel research tracks to inform mgrs about particular species. Makes sense to tie weed risk assessments to this, so we have info to provide mgrs. 2. Marine theme, opening of Smithsonian – opportunity to provide interface for Layperson, raise systematics to a higher level.

Male: 3. No way to fund invasive species issues in non-agricultural settings. Can we email a list to links to send to members to provide to agencies. Research funding at the federal level. Is there money out there for researching invasives in non-agricultural settings? Requesting links for sites that do have funding for this?

Male: Perhaps NSF has this? Let’s talk offline about this.

### **Public Comment**

Interior was taken off the internet b/c of a lawsuit. [applauds]. Secretary announced FWS lists polar bear as threatened – section 8. This listing will not be used to stop projects on the basis of CO2 emissions.

Lori –from a nonprofit perspective, 1.if theres a way to have money available to folks (ptas, HOAs, etc.) to work towards education, we can do more. Small nonprofits are overwhelmed by huge grant proposal applications. 2. Community and outreach on ISAC level, it’s important on the small nonprofit perspective as well. For example a pocket guide that small groups pass out has an impact. Help yourselves to the treats.

Gino – Thank you for coming to Alaska.

Chair – 2 more items of business:

Shall we review action items? Let’s just look at them and confirm them. 1 look familiar, next one looks familiar – 1<sup>st</sup> paragraph is background, 2<sup>nd</sup> one recommendation, next is an action item that Peter discussed. Betty will write that , and Lori will send it out to everyone for verification. Female – biofuel and energy community not just biofuel community.

Female – Thank you for the interest. New chairman and 3 new member of the steering committee were mentioned.