

**AISWG Marine Subcommittee Minutes May 2006 to August 2006**

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Minutes were recorded by Deena Jallen (UAF-CES).

Teleconferences were hosted by the NOAA National Marine Fisheries Service (NMFS).



## **Alaska Invasive Species Working Group: Marine Subcommittee audio Conference**

Tuesday May 30, 2006 9am to 10am

Hosted via NMFS bridge number

### **Participants**

Linda Shaw- National Marine Fisheries Service, Juneau

Bob Piorkowski- AK Dept. of Fish and Game, Juneau

Paul Andron, LTJG -US Coast Guard, Juneau

Deena Jallen- UAF Cooperative Extension Service, Fairbanks

Sue Banet- USDI Minerals Management Service

Lisa Ka'aihue- Prince William Sound Citizens Advisory Council

Kris Holderied- NOAA Kasitsna Bay Laboratory

Bill Ballard- AK Department of Transportation

### **Agenda: Items to discuss**

- Plan group purpose and direction of Marine Subcommittee/Group
- Identify holes and overlap between Marine and the other subcommittees
- Formulate a document of what the Marine subcommittee wants to accomplish
- Discuss the top 10 worst Marine Species list
- Set next meeting time

### **Purpose and Direction of the Marine Group**

The purpose of the Marine Subcommittee of the Alaska Invasive Species Working Group is to collaborate and cooperate with the AISWG and other organizations on marine invasive species issues. One of the existing groups is the Non-Indigenous Species (NIS) Group led by Lisa Ka'aihue of the Prince William Sound Regional Citizens Advisory Council. L. Ka'aihue and Linda Shaw will exchange participant lists and meeting schedules to facilitate greater communication between the two groups.

Activities for the Marine group will be limited by lack of funding. In order to help establish the Alaska Invasive Species Council and secure support, the group will focus on tasks that can be acted on before the October meeting of the AISWG. One of the goals of the AISWG is to formulate a statewide invasive species plan, which will be a valuable tool for generating governmental support.

To this end, the Marine Group will begin working on the Marine Section. Collaboration with the rest of the AISWG will be needed to come up with a consistent format for the Alaska Plan. This will be done over the listserv, and can be discussed at the next full AISWG meeting on Thursday June 29<sup>th</sup>.

### **Identify holes and overlap between Marine and the other subcommittees**

One issue brought up by Bill Ballard was the non-existence of plans for regulating the movement of contractors and equipment throughout the state. Most of the Marine focus is on ballast water. Greater attention may need to be focused on equipment transport and on hull fouling. Bob Piorkowski and Paul Andron verified that not much is in place to regulate hull fouling in Alaska, and the current Coast Guard recommendations are non-enforceable. The current Coast Guard regulations are presented below under **Additional Resources**.

### **Formulate a document of what the marine subcommittee wants to accomplish**

No formal document has yet been generated for the Marine Subcommittee. However, it has been agreed upon to pursue creating the Marine section of the future Alaska Invasive Species Management Plan.

This Plan will provide greater direction for the Marine Group and other groups in Alaska, and help to define what the rest of the AISWG should be focusing on.

The Alaska Aquatic Nuisance Species Management Plan has already been generated. To increase readability, it is proposed to develop an expanded Executive Summary as part of the Alaska Invasive Species Management Plan. This Document should be approximately ten pages in length, and summarize the AK ANSMP in clear and readable language. Special attention should be paid to rewording the action

items and tasks. Those desiring more in-depth technical information can then refer to the AK ANSMP itself.

In order to accomplish this, the Marine group will review existing plans from other states and the Ocean Commission, and decide on a format at the next meeting in June. Members from the AISWG group at large are encouraged to weigh in on the process of creating a statewide plan consistent with the marine section.

B. Piorkowski and Kris Holderied will supply links to plans for the Marine Group to review (see **Additional Resources**).

### **Discuss top 10 Marine Invasive Species**

The list submitted to the group by B. Piorkowski was generated by looking at lists from the Prince William Sound Regional Citizens Advisory Council website and Washington State. B. Piorkowski will write a brief summary of the criteria used for choosing these species to put on the list. Discussion of the list will continue during the next meeting.

Top 10 Invasive Marine Species (\* indicates species currently found in Alaska)

Green crab (*Carcinus maenas*)  
New Zealand mud snail (*Potamopyrgus antipodarum*)  
Atlantic Cord grass (*Spartina* spp)  
\*Boring Sponge (*Cliona* spp)  
\*Rockweed (*Fucus cottoni*)  
\*Dead Man's Fingers (*Codium fragile*)  
\*Atlantic salmon (*Salmo salar*)  
Colonial tunicate (*Didemnum lahillei*)  
\*Violet tunicate (*Botryllus schlosseri*)  
\*Golden Star (*B. violaceus*)

### **Next Meeting for the AISWG Marine Subcommittee:**

The next meeting is scheduled for 9 am, Wednesday June 28<sup>th</sup>. 907-586-7060 (allow line to ring until another party picks up, long distance charges apply)

### **Topics to discuss:**

- Choosing a Plan to base the Marine Section of the Alaska Invasive Species Management Plan on (discussion may be continued at the AISWG meeting at 1pm Thursday, June 29<sup>th</sup>).
- Discuss species and criteria used to generate the top 10 list
- Set next meeting time

### **Additional Resources:**

[www.oceancommission.gov](http://www.oceancommission.gov) home page for the Ocean Commission. Follow documents link to download the plan in .pdf format

<http://www.pwsrca.org/projects/NIS/index.html> -- will take you straight to the NIS pages

[www.pwsrca.org](http://www.pwsrca.org) -- will take you to the Prince William Sound Citizens Advisory Council

<http://www.uscg.mil/hq/g-m/mso/ans.htm> - the Coast Guard page for Aquatic Nuisance Species

### **Coast Guard Regulations regarding Hull Fouling:**

§ 151.2035 What are the required ballast water management practices for my vessel?

(a) Masters, owners, operators, or persons-in-charge of all vessels equipped with ballast water tanks that operate in the waters of the U.S. must:

(1) Avoid the discharge or uptake of ballast water in areas within or that may directly affect marine sanctuaries, marine preserves, marine parks, or coral reefs.

(2) Minimize or avoid uptake of ballast water in the following areas and situations:

(i) Areas known to have infestations or populations of harmful organisms and pathogens (e.g., toxic algal blooms).

(ii) Areas near sewage outfalls.

(iii) Areas near dredging operations.

(iv) Areas where tidal flushing is known to be poor or times when a tidal stream is known to be more turbid.

(v) In darkness when bottom-dwelling organisms may rise up in the water column.

(vi) Where propellers may stir up the sediment.

(vii) Areas with pods of whales, convergence zones, and boundaries of major currents.

(3) Clean the ballast tanks regularly to remove sediments. Clean the tanks in mid-ocean or under controlled arrangements in port, or at dry dock. Dispose of your sediments in accordance with local, State, and Federal regulations.

(4) Discharge only the minimal amount of ballast water essential for vessel operations while in the waters of the United States.

(5) Rinse anchors and anchor chains when you retrieve the anchor to remove organisms and sediments at their place of origin.

(6) Remove fouling organisms from hull, piping, and tanks on a regular basis and dispose of any removed substances in accordance with local, State and Federal regulations.

(7) Maintain a ballast water management plan that has been developed specifically for the vessel that will allow those responsible for the plan's implementation to understand and follow the vessel's ballast water management strategy.

(8) Train the master, operator, person-in-charge, and crew, on the application of ballast water and sediment management and treatment procedures.

(b) In addition to the provisions of paragraph (a) of this section, if the vessel carries ballast water that was taken on in areas less than 200 nautical miles from any shore into the waters of the U.S. after operating beyond the Exclusive Economic Zone, you (the master, operator, or person-in-charge of a vessel) must employ at least one of the following ballast water management practices:

(1) Perform complete ballast water exchange in an area no less than 200 nautical miles from any shore prior to discharging ballast water in U.S. waters;

(2) Retain ballast water onboard the vessel; or

(3) Prior to the vessel entering U.S. waters, use an alternative environmentally sound method of ballast water management that has been approved by the Coast Guard.

**Links to Sample Plans:**

<http://haccp-nrm.org/> Hazard Analysis Critical Control Point plans that prevent invasives from being transferred by work activities

<http://www.agri.state.id.us/Categories/PlantsInsects/InvasiveSpeciesCounsel/StrategicActPlan.php>- Idaho Invasive strategic plan website

[http://www.nature.nps.gov/biology/invasivespecies/strat\\_pl.cfm](http://www.nature.nps.gov/biology/invasivespecies/strat_pl.cfm) NPS strategic plan for invasives

http:[http://www.dcr.virginia.gov/dnh/vaisc/documents/VISMP\\_final.pdf](http://www.dcr.virginia.gov/dnh/vaisc/documents/VISMP_final.pdf)

[http://http://www.dcr.virginia.gov/dnh/vaisc/documents/VISMP\\_final.pdf](http://http://www.dcr.virginia.gov/dnh/vaisc/documents/VISMP_final.pdf)  
Virginia strategic plan

<http://www.dep.state.fl.us/lands/invaspec/2ndlevpgs/pdfs/2003%20Strategic%20Florida%20Plan%20-%20Fed.pdf> Florida strategic plan

## **Alaska Invasive Species Working Group: Marine Subcommittee audio Conference**

Wednesday June 28, 2006 9am to 10am

Hosted via NMFS bridge number

### **Participants**

Linda Shaw- National Marine Fisheries Service, Juneau

Bob Piorkowski- AK Dept. of Fish and Game, Juneau

Deena Jallen- UAF Cooperative Extension Service, Fairbanks

Lisa Ka'aihue- Prince William Sound Citizens' Advisory Council

Dan Gilson- Prince William Sound Citizens' Advisory Council

Sherry Miller- Prince William Soundkeeper

Michele Hebert- UAF Cooperative Extension Service

### **Agenda: Items to discuss**

- Discuss the format of the Alaska Invasive Species Management Plan
- Discuss the top 10 worst Marine Species list
- Set next meeting time

### **Format of the Alaska Invasive Species Management Plan**

The marine group reviewed management plans from several states and organizations. The two most popular were the National Park Service Invasive Species Management Plan located at:

[http://www.nature.nps.gov/biology/invasivespecies/strat\\_pl.cfm](http://www.nature.nps.gov/biology/invasivespecies/strat_pl.cfm)

And the Virginia Invasive Species Management Plan

[http://www.dcr.virginia.gov/dnh/vaisc/documents/VISMP\\_final.pdf](http://www.dcr.virginia.gov/dnh/vaisc/documents/VISMP_final.pdf)

(links to the plans will follow in the Additional Resources section)

Both of these plans have a very strong structure. The Virginia plan presents an overview of 7 goals, and has key actions identified as crucial to implementation. It also has a good introduction that spells out what an invasive species is, and why the issue is important. The Virginia plans organizes prevention goals by pathway, and risk assessments by species.

The Marine group agreed that formulating a comprehensive invasive species management plan will be important for generating support from the state. Bob Piorkowski will generate an outline, and the entire AISWG will be asked for individuals wishing to assist with the outline. Comment and support for the outline process will be sought at the June 29<sup>th</sup> AISWG teleconference. The goal is to have a skeleton for the Alaska Invasive Species Management plan ready for the October meeting of the AISWG.

### **Discuss the top 10 worst Marine Species list**

Criteria for selecting species for the top ten list has been sent out by B. Piorkowski, and will be discussed further at the next meeting. (see Additional Resources)

### **Next Meeting for the AISWG Marine Subcommittee:**

The next meeting is scheduled for 9 am, Tuesday July 25<sup>th</sup>. 907-586-7060 (allow line to ring until another party picks up, long distance charges apply)

### **Topics to discuss:**

- Discuss Top Ten list Criteria
- Update on Invasive Species Management Plan outline progress
- Set next meeting time

### **Additional Resources**

#### **Links to Strategic Plans**

<http://haccp-nrm.org/> Hazard Analysis Critical Control Point plans that prevent invasives from being transferred by work activities

<http://www.agri.state.id.us/Categories/PlantsInsects/InvasiveSpeciesCounsel/StrategicActPlan.php>  
Idaho Invasive strategic plan website

[http://www.nature.nps.gov/biology/invasivespecies/strat\\_pl.cfm](http://www.nature.nps.gov/biology/invasivespecies/strat_pl.cfm)  
NPS strategic plan for invasives

[http://http://www.dcr.virginia.gov/dnh/vaisc/documents/VISMP\\_final.pdf](http://http://www.dcr.virginia.gov/dnh/vaisc/documents/VISMP_final.pdf)  
Virginia strategic plan

<http://www.dep.state.fl.us/lands/invaspec/2ndlevpgs/pdfs/2003%20Strategic%20Florida%20Plan%20-%20Fed.pdf>

Florida strategic plan

[http://www.adfg.state.ak.us/special/invasive/ak\\_ansmp.pdf](http://www.adfg.state.ak.us/special/invasive/ak_ansmp.pdf)  
Alaska Aquatic Nuisance Species Management Plan

**DRAFT A--Criteria for Invasive Species Designation/Ranking in Alaska**  
**(by rjpiorkowski adapted from MA invasive species program)**

**Must meet these four base criteria to be considered for designation/ranking**

1. Non-indigenous to an area of Alaska but broadly distributed elsewhere (can adapt to a wide range of conditions and or exists under similar conditions found in Alaska)
2. Has the biologic potential for rapid and widespread dispersion and establishment in minimally managed habitats. (out-competes and replaces native biota, free from predators/diseases)
3. Have the biologic potential for dispersing over spatial gaps away from site of introduction (closely associated with human activities)
4. Have the biologic potential for existing in high numbers in either disturbed habitats or undisturbed habitats (self compatible, short juvenile periods, high reproductive potential, several reproductive stages).

**Potential Invasive- meet criteria #1 thru #5**

5. Established in Alaska (persists without additional introductions)

**Invasive- meets criteria #1 thru #5 and at least one of #6 thru #9**

6. Widespread in the Pacific Northwest or the Yukon, or at least be common in habitat type(s) found in Alaska.
7. Have many occurrences of numerous individuals in localized areas of Alaska; high numbers of individuals in minimally managed habitats
8. Out-compete other species in the same natural biotic community.
9. Demonstrates rapid growth, high production and dissemination, and establishment in natural biotic communities.

**Likely invasive- meets criteria #1-5 and at least one of #10 thru #12**

10. Have at least one occurrence in Massachusetts that has high numbers of individuals forming dense stands in minimally managed habitats
11. Have the potential, based on its biology and its colonization history in the northeast or elsewhere, to become invasive in Massachusetts.
12. Be acknowledged to be invasive in nearby states but its status in Massachusetts is unknown or unclear. This may result from lack of field experience with the species or from difficulty in species determination or taxonomy.

**POTENTIAL INVASIVE—meets criteria #1 thru #4 and #13 thru 15**

13. The species, if it becomes established in Alaska, based on its biology and biological potential, would pose an imminent threat to the biodiversity of Alaska **and**
14. Its establishment is possible, **and**

15. The species has a documented history of invasiveness in other areas with climates ecosystems similar to Alaska.

An addition to the previous the previous email. There are two other criteria that should be incorporated into the scheme at a future date.

1. Are other invasive species present that would facilitate this species establishment (positively correlates with invasiveness)
2. Are there native species present of the same genera that occupy similar niches (negatively correlate with invasiveness)

An addition to the previous list. There are two other criteria that should be incorporated into the scheme at a future date.

1. Are other invasive species present that would facilitate this species establishment (positively correlates with invasiveness)
2. Are there native species present of the same genera that occupy similar niches (negatively correlate with invasiveness)

## **Alaska Invasive Species Working Group: Marine Subcommittee audio Conference**

Wednesday July 25, 2006 9am to 10am

Hosted via NMFS bridge number

### **Participants**

Linda Shaw- National Marine Fisheries Service, Juneau

Bob Piorkowski- AK Dept. of Fish and Game, Juneau

Deena Jallen- UAF Cooperative Extension Service, Fairbanks

Lisa Ka'aihue- Prince William Sound Regional Citizens' Advisory Council

Dan Gilson- Prince William Sound Regional Citizens' Advisory Council

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### **Agenda: Items to discuss**

- Discuss the top 10 worst Marine Species list
- Update on invasive species activities
- Set next meeting time

### **Discuss the top 10 worst Marine Species list**

As developing criteria to rank invasive species could take years to finalize, it is agreed to go forward with a simple list for the website. Prince William Sound Regional Citizens' Advisory Council has worked with the Smithsonian Environmental Research Center to develop an invasive species of concern list for the PWSRCAC website. This list does not have a ranking system attached, and is missing a few species, such as spartina (*Spartina sp.*) or New Zealand mud snail (*Potamopyrgus antipodarum*), which are of concern. Their list can be found at; <http://www.pwsrcac.org/projects/NIS/factsheets.html>

For the AISWG website, the group decided an informal list of 10-15 of the worst species with linked information should be sufficient for now, and can be updated later. Links should also be included to the website for the exhaustive Washington state non-indigenous species link, and the global invasive species list. (see Additional Resources)

### **Update on Invasive Species Activities**

Each meeting participant provided updates on recent invasive species work. Following is a brief summary of the topics discussed;

Bob Piorkowski: Discussed work regarding the NOAA, ADF&G, PSMFC, SERC and PSU Green Crab (*Carcinus maenas*) Initiative. The goal is to assess the possibility of reduction or eradication of an existing green crab population. There is a west coast tunicate monitoring project with most of the same cooperators already listed along with SFSU. Fouling plates will be placed in Alaskan communities ranging from Ketchikan to Unalaska with the goal of early detection of invasive tunicates and other invasive species. Hopefully this is the start of both an effective and long term marine monitoring program for Alaska.

Bob reported on initial discussions about invasive species monitoring with the Canadian DFO (Department of Fisheries and Oceans) and other agencies in the BC provincial government. Recent surveys on Vancouver Island by DFO have confirmed several established green crab populations. Previous efforts to coordinate on invasive species monitoring with Canada have encountered to this date insurmountable challenges with getting samples and data back, especially in regard to Atlantic (*Salmo salar*) salmon scale and otolith samples from Alaska captures. The Atlantic salmon recently caught in Cook Inlet appears to have thermal markings on one of its otoliths indicating that the fish is from a Washington state hatchery. Canadian Atlantic salmon hatcheries are not known to thermally mark their fish.

ADF&G is also working on a short film about invasive species to be shown in public areas and events (airports, outdoor shows, etc.) and is close to finalizing a NIS (non-indigenous species) display that will be used at regional offices and educational events. A draft Alaska Invasive Rodent Management Plan has just been sent out to reviewers and is available for public review (go to: <http://www.adfg.state.ak.us/special/invasive/invasive.php> )

Linda Shaw stated she had been in talks about cooperative projects with the US Forest Service specifically regarding *Spartina sp.* and green crab suitability assessments using the Shore Zone data set. Several areas, including Bostwick Bay where a card from a PSU drift study was recovered, may be suitable for these species to colonize.

Lisa Ka'aihue is writing a proposal to have a film festival at the Alaska Forum on the Environment's February 2007 meeting. Any film citations will be useful to add to the proposal. To submit a film title, contact [kaaihue@pwsrcac.org](mailto:kaaihue@pwsrcac.org). One session of the festival will be devoted to invasive species. Films should be 30 minutes or less. PWSRCAC is anticipating a final report from the Smithsonian Environmental Research Center titled; Biological Invasions in Alaska's Coastal Marine Ecosystems: Establishing a Baseline (see Additional Resources for full citation information). This report will be added to their existing invasive species publications list.

Dan Gilson said PWSRCAC is involved in partnerships with Youth Area Watch for green crab monitoring (<http://www.pwsrcac.org/outreach/education.html>). Surveys were conducted in the Kodiak area, and will take place in Unalaska in mid-August. Efforts are also being made to set up a green crab monitoring program with local native groups. Activities are also taking place in Kachemak Bay, and with the Prince William Science Center Youth Area Watch Program. Ongoing green crab trapping has been taking place at various locations in PWS, with no green crabs caught to date. Dan Gilson will be deploying monitoring plates for tunicates in Valdez as part of the cooperative coast-wide tunicate monitoring effort mentioned earlier.

Deena Jallen has been working on the Alaska Invasive Species Working Group website. The website name and release date will be discussed at the AISWG meeting August 1. The August issue of the AISWG newsletter is also being written. This issue will focus on invasive species research in the state. Contributions from agencies for a paragraph about research will be solicited over the listserv.

#### **Next Meeting for the AISWG Marine Subcommittee:**

The next meeting is scheduled for 9 am, Thursday August 31st. 907-586-7060 (allow line to ring until another party picks up, long distance charges apply)

#### **Topics to discuss:**

- General update on activities
- Discussion of results from AISWG meeting on August 1.
- Set next meeting time

#### **Additional Resources**

Washington State non-indigenous species  
<http://wdfw.wa.gov/fish/ans/ans4.htm>

Global Invasive Species List  
<http://www.issg.org/database/welcome/>

Rat plan draft for review  
<http://www.adfg.state.ak.us/special/invasive/invasive.php>

Prince William Sound RCAC educational outreach  
<http://www.pwsrcac.org/outreach/education.html>

Title of the upcoming Smithsonian Environmental Research Center report:  
Biological Invasions in Alaska's Coastal Marine Ecosystems:  
Establishing a Baseline

Submitted by:

Gregory M. Ruiz, Tami Huber, Kristen Larson  
Linda McCann, Brian Steves, & Anson H. Hines

Smithsonian Environmental Research Center  
Edgewater, Maryland USA

## Alaska Invasive Species Working Group: Marine Subcommittee audio Conference

Thursday August 31, 2006 9am to 10am

Hosted via NMFS bridge number

### Participants

Linda Shaw- National Marine Fisheries Service, Juneau

Bob Piorkowski- AK Dept. of Fish and Game, Juneau

Susan Banet – Minerals Management Service, Anchorage

### Agenda: Items to discuss

- Update on invasive species activities
- Set next meeting time
- Possible agenda items for next meeting

### Update on Invasive Species Activities

Each meeting participant provided updates on recent invasive species work. Following is a brief summary of the topics discussed;

Susan Banet: Invasive species issues at the Minerals Management Service are being overshadowed by recent lawsuits related to the impacts of noise disturbance to whales in the Beaufort Sea. Nevertheless, Susan did report that vessels conducting seismic work in the Region this summer were asked by MMS to report their latest hull cleaning. Most of these vessels come from foreign ports to Alaska. Vessels reported last cleanings ranging from late in the fall of 2005 to spring of 2006. Call participants discussed hull fouling as a vector and the USCG Regulations governing it, which are considered more as guidelines due to interpretation. Bob mentioned that there is a ship and dry dock facilities in Ketchikan. Bob noted that there are reports of hulls being clean in the Arctic waters and that the temperatures may be a deterrent to the survival of fouling organisms. Linda asked about monitoring of such vessels and Susan suggested that it would be interesting to look at the hulls of ships heading north from Dutch Harbor and then reassess their fouling communities when they come back. Bob noted that there are a number of current efforts in West coast states to address hull fouling and that the Smithsonian Environmental Research Center has a project to look at hull fouling using submersibles. Bob provided the following additional information on hull fouling via e-mail.

There is guidance from Executive Order 13112 and there are USCG Regulations (33CFR151) that address preventions of AIS. While the 33CFR151 Regulations may be effective for reducing the introduction of invasive species in the contiguous U.S. via the ballast water vector, I've identified some serious 'loopholes' in the regulations that facilitate the introduction of Aquatic Invasive Species (AIS) to Alaska for the following reasons:

1. Section 151.2035 (a)(5) requires the rinsing of anchors and anchor chains when retrieving the anchor to remove organisms and sediment at their place of origin. Loophole: there is no requirement to rinse or clean other equipment, such as Ocean Bottom Cables placed on the seafloor. This is also applicable to drilling rigs brought in from outside of Alaska.

2. Section 151.2035 (a)(6) requires removal of fouling organisms from hull, piping, and tanks on a regular basis and dispose of any removed substances in accordance with local, State, and Federal regulations. Loophole: 'regular' is undefined and may be interpreted to mean every few months, every year, every 5 years, and so on. Also, there is no reporting requirement for when hulls, etc. were cleaned. Therefore we have no way of knowing what the vessel 'regular basis' of hull cleaning involves.

**Comment:** The OB cables are routinely cleaned prior to storing at the end of a survey. The industry assured us that this is standard practice. The cables are very expensive equipment and, therefore, receive TLC treatment. The same goes for the marine streamer cables.

3. Section 151.2035 (b) and Section 151.2036 together appear to form a problematic loophole; specifically coastwise (non-tanker) vessels operating and taking on ballast water within 200 nm of the U.S. Coast (e.g., departing Los Angeles; a very AIS contaminated port) may transit to Alaska with ballast water picked up from LA without a ballast water exchange being required so long as it stays within 200 nm of any shore, and that it does not exchange ballast water in the Canadian EEZ. The vessel may then perform a ballast water exchange in coastal or marine waters of Alaska, i.e., releasing the ballast water transported from LA to Alaska, and thereby subsequently introducing one or more AIS.

Linda Shaw: NMFS is exploring the possibility of producing an invasive species guide for the Federal fishery observer program working with Michele and Deena at UAF. Currently the observer program is using paper inserts into training materials that identify Atlantic salmon. A weather resistant quick id guide that can be taken on deck would be useful. Bob suggested that Atlantic salmon and tunicates would be the species most likely encountered by the Federal fisheries. Linda also reported that project review by the NMFS Anchorage Field Office on an EPA NPDES permit for the Tesoro ballast water facility is opening some dialog with Tesoro to become more involved with invasive species monitoring, and possibly participation in the AISWG. EPA is drafting a letter for NMFS review. The NMFS Anchorage field office is also anticipating a BIA EA review of the Alyeska ballast water treatment facility in Valdez. She mentioned that there is some local interest in the excess capacity of this facility being used for non-oily ballast water treatment. Bob stated that vessels heading into Valdez dump their ballast in the Gulf prior to landing. He also stated that an upcoming bill proposed by Senator Stevens would put ballast water treatment under one Federal umbrella with the same standards for all States and that such vessels may wish to convert to on-board treatment instead of treatment at a ground facility like that at Valdez. Such changes are possibly 5-6 years away, however, awaiting the availability of good treatment technology. Linda also noted that it would be interested to see what the costs of unloading and treating non-oily ballast are relative to oily ballast to get an idea of how much more burdensome such treatment would be to the industry.

Bob Piorkowski: Advertised for a full time invasive species position and got good candidates, but is not sure if will be able to hire due to administrative constraints. Bob has also contracted a part time education specialist in Anchorage to work on invasive species outreach projects to bush Alaska. Bob reported that Pam Fuller of USGS is developing a nationwide taxonomic identification expert database through the Western Regional Panel, which may become available this winter and also runs a national freshwater invasive species reporting database. Bob is working on a 3 minute invasive species film with NEERS. An Atlantic salmon caught in Cook Inlet last month was determined to have come from Washington State. The USFWS is looking into funding basic survey and monitoring work on "rock snot" of the diatom genus *Didymosphenia*, which is being reported from south-central Alaska, Kenai and Kodiak. Bob commented on a proposal to introduce geoducks to the South-central area, which is further north than they are naturally distributed, for commercial aquaculture. He is tracking a NOAA solicitation for a pre-proposal regarding developing a ballast water treatment technology testing center on the west coast.

#### **Next Meeting for the AISWG Marine Subcommittee:**

The next meeting is scheduled for 9 am, Thursday September 28 907-586-7060 (allow line to ring until another party picks up, long distance charges apply)

#### **Topics to discuss:**

- General updates from each attendee
- Status of PWSCAG green crab monitoring-Gilson
- Status of tunicate monitoring-Pegau
- Status of PWS ballast water issues-Ka'aihue
- Status of NOAA ballast water treatment facility solicitation-Piorkowski
- Set next meeting time