



Informational Memo

Subject: Regional Invasive Species Update #11: August-November, 2005

From: Joan Cabreza  
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To: R10 ETPA Management Team

ecc: Internal EPA mail group, & interested outside parties

These update memos were initially intended to update EPA management on EPA Invasive Species Program activity, but an expansion of the recipients has resulted in an expanded material coverage. Updates now include relevant activity occurring nationally and within Region 10 states. Less inclusion of information on AK and ID does not necessarily mean less is happening there...I am just not as involved and/or have not received much information on their activity.

I am happy to include related updates or activities of interest from any reader who submits them. Credit for any errors is entirely mine.

**EPA Updates**

EPA HQ Economic Impacts Study. Following the July 20 interagency workshop to develop a process to estimate the national economic impacts of invasive species, we have had monthly conference calls to discuss interagency follow-up. We hope to have about \$200k to develop 1-3 regional pilot projects aimed at obtaining regional impact estimates. *(For additional information, contact Marilyn Katz at 202/566-1246).*

EPA Authorities Paper. The Office of Wetlands, Oceans and watersheds (OWOW) has just published "Overview of EPA Authorities for Natural Resource Managers Developing Aquatic Invasive Species Rapid Response and Management Plans". Understanding the EPA regulatory considerations will hopefully help state and local managers to streamline rapid responses once the need for eradication of a new organism has been identified. *(To download the report, go to [www.epa.gov/owow/invasive\\_species](http://www.epa.gov/owow/invasive_species)).*

TMDL Lawsuit Update. In April, 2004, the Ocean Conservancy challenged EPA's approval of California's 303(d) impaired waters list for 2002 as "arbitrary [and] capricious" because the state did not include several waters the group claims are impaired due to invasive species. The case is significant because there is no case law on this issue or on biological pollutants in general. EPA has never formally taken a position on whether invasive species are 'pollutants' under the Clean Water Act (CWA). Following several delays in the case, EPA entered a settlement agreement with Ocean Conservancy

in November, 2005. This agreement followed California's issuance of a draft 2004/2006 Section 303(d) listing decision that includes several new invasive species listings. The settlement agreement provides that if California fails to adopt and submit its final 303(d) list to EPA by June 30, 2006, EPA will reconsider its decision concerning California's 2002 list. If EPA reopens the 2002 list, it will issue a revised decision by August 29, 2006. After the settlement agreement was signed, the Court dismissed the case without prejudice. EPA expects California to submit its final 2004/2006 list by late spring, 2006.

Ballast Water Lawsuit Update. On March 30, a District Court judge ruled that EPA exceeded its authority in exempting ship ballast water discharges from the NPDES permit program, which regulates point source discharges under the CWA. While that much is clear, issues relating to how and when EPA is ordered to solve the problem are still unclear. Both sides presented additional information to the judge at a November 30 hearing. The next step is for her to issue a final order specifying what the agency is to do in light of her earlier ruling (e.g., send the rule back to EPA for further action, or require NPDES permits and/or final rulemaking by a schedule set by the court, etc). Typically such a decision takes around 60 days, and following such a final order, the government would then have 90 days to decide whether to appeal.

Regional Invasion Pathways Project Update. After completing studies on *Spartina*, genetic profiles are now being developed for all copepod and metazoan invasive species across the West Coast. The Office of research and development (ORD) has provided some additional funding that ties to the Environmental Monitoring and Assessment Protocol (EMAP) program, and a contract has been let to the Moss Landing Marine Lab to sample multiple habitats at 15 locations in WA, OR, and CA to obtain organisms for the project. Field work will occur next spring. (*Contact Mike Blum for more info at 513/569-7043*)

Advanced Monitoring Initiative. Henry Lee has received word that his \$250K proposal to ORD will be funded. The project will use the Pacific Coast Estuarine Information System (PCEIS) database to evaluate a multi-scalar metric of estuarine condition and to compare different niche models to predict distribution of various estuarine species, so it has many applications for invasive species. I have agreed to provide some limited Region 10 support, probably related to wetland plant taxonomy or other research. (*For more info contact Henry Lee at the EPA Newport OR lab 503/867-5001*).

R10 Speeches and presentations. Due to workload and travel constraints I am turning down the smaller speech requests, and have significantly reduced my speaking commitments. As a result, only two presentations were completed in August-October:

|          |  |
|----------|--|
| 08/09/05 | WA Ballast Water Workgroup - Marrestone Is, WA (genetic tool)      |
| 09/25/05 | Union Hill Garden Club- Redmond WA (gardeners and invasive plants) |

Upcoming Presentations:

|          |   |
|----------|---|
| 01/19/06 | UW lecture series-Center for Urban Horticulture (invasive plants)       |
| 03/21/06 | WSU Master Gardener training - Seattle, WA (native and invasive plants) |
| 04/24/06 | Nat. Mitigation Bank Conference – Portland, OR (invasives and wetlands) |
| 05/04/06 | Soc. of Wetland Scientists -Vancouver WA (invasives and wetlands)       |

### Activity in Pacific Northwest States

WA Early Detection and Rapid Response Plan. The State Aquatic Nuisance Species (ANS) Committee completed the state Early Detection and Rapid Response (EDRR) Plan for ANS, and we have transmitted it to the Department of Fish and Wildlife (WDFW) for finalization and implementation. Agencies that manage invasive plants and animals will carry out the plan through a memorandum of understanding with WDFW. The plan contains tasks to monitor, report, verify and respond to new invaders, and defines the responsibilities of agencies responding to the invaders. A biannual report to the legislature summarizing state ANS activity is also being transmitted this week. *For more information contact Scott Smith at 360/902-2724).*

WA Aquatic Use Permit. Because of a recent 9<sup>th</sup> circuit decision (Faihurst v. Hagener) as well as an EPA rule to be promulgated in early 2006, Ecology has developed a new Freshwater Aquatic Plant and Algae Management permit to be issued as a state waste discharge permit. People will now apply directly to ecology, not WSDA, and they will have to pay a \$350 fee for application. WSDA will still manage emergent weeds. EPA and other agencies have provided input via a permit advisory group. The new aquatic permit is now available for comment, and public hearings will be held in Spokane, Lakewood and Centralia. *(For more information, contact Kelly McLain at 360/407-6938.)*

WA Non-Native List. Pam Meacham is compiling a list of all the ANS already found in WA. (Surprisingly, there is no such compilation.) She is also setting up a database to track occurrences of these organisms throughout the state. At some point this information will be transferred to the USGS database. *(For more information, contact Pam Meacham at 360/902-2741.)*

WA Non-Native Aquatic Species Watchlist. I am developing a list of species considered to pose a biologic threat to WA aquatic ecosystems. Its purpose is to serve as an “alert” or “watch for” list. It ties to the EDRR plan, and identifies a subset of Priority Species to target for monitoring and/or control efforts. The list contains some species for which eradication measures will not or cannot be taken at the present time, and it also contains organisms that may be raised or released under permit in specific locations, but that are generally unwanted outside of containment because they are known to adversely impact aquatic ecosystems. The list includes species not yet observed here, and species already observed here that we would like to eradicate, and species previously established but currently eradicated. The draft list was presented to the full WA ANS committee at the October meeting, and revised based on comments from the meeting. It will be finalized this month. *(Contact me for more information at 206/553-7369).*

WA Invasive Species Council. In October, the Governor’s office invited EPA to join an already-formed workgroup of various agencies to discuss statewide invasive species council formation. It is still unclear how the present ANS committee would relate to the council or what exact advantages a council might provide, as most members of the workgroup are already on the WA ANS executive committee. Although last year’s

legislation on an invasive species council did not pass, we plan to hold an organizational first council meeting early next year.

School Curriculum: a New Pathway for Invasives. A popular science curriculum being promoted in Oregon and other states uses live organisms to teach students ecosystem concepts. Unfortunately, the organisms include non-native crayfish and aquatic plants, both of which are invasive. Once classes complete the unit, it is feared they will release the organisms into nearby waters, starting new infestations. Sam Chan of Oregon Sea Grant has been working to educate the biological supply houses that supply the organisms, the schools and other groups. He has developed a poster "Schools and Science Curricula as Potential Pathways for Aquatic Invasive Species" and is updating an accompanying "Do Not Release" brochure that can be an effective way to emphasize the issue and highlight the pathways for schools, science curricula developers and biological supply houses. Sea Grant can supply a designer's template of the poster for partners to customize to their individual needs. *(For more information, contact Sam at [samuel.chan@oregonstate.edu](mailto:samuel.chan@oregonstate.edu))*

Another Entrance pathway Identified. A marine salvage yard is proposed for development in Yaquina Bay, OR, on Maclean Point, an industrial-zoned property controlled by the Port of Newport. Local citizens have raised concerns because of the potential for introduction of invasive species present in the ballast water or on hulls of the ships to be demolished. This is particularly critical since many of the ships may come from California, the hotbed of West Coast invasives.

ANS Guide to the Columbia Basin. Paul Heimowitz (USFWS) is organizing a small group to write a Columbia River Basin ANS publication. The purpose is to promote understanding of ANS in the basin and make readers more receptive to information on how to avoid future introductions, avoid spread of existing species, and report new sightings. The 40-50 page booklet will have multiple color graphics, profile some common invasive species, contain a few case studies, and provide information on avoiding future impacts. We hope to have a draft guide available for comment this fall. *(Contact Paul for more information at 503/872-2763)*

Pacific Northwest Invasive Species Book. This UW-published book describes 100 terrestrial and aquatic invasive species least wanted in the Pacific Northwest. It has with multiple authors. Each species has a picture, a range distribution map, and a description of the organism, its impacts, habitats and control measures. The book is in China for printing, and we hope it will be available this month. *(For more information, contact Sarah Reichard at 206/616-5020)*

WA Noxious Weed List Additions. The State Noxious Weed Control Board has added floating primrose willow (*Ludwigia peploides*) and reed sweetgrass (*Glyceria maxima*) to the State Noxious Weed List as Class A weeds, and has increased the designated control areas for the Class B weeds gorse (*Ulex europaeus*) and kochia (*Kochia scoparia*). Common fennel (*Foeniculum vulgare*) and yellow archangel (*Lamium galeobdolon*) were also proposed as list additions, but (unfortunately) there was no agreement within the

Control Board, so the proposed changes were not adopted. *For more information, contact Steve McGonigal at (360) 902-2053.*

Noxious Weed EISs. The growing number of federal weed management plans shows increased recognition of the weed problem on federal lands. EPA is currently commenting on a noxious and invasive weed management plan for the South Fork Salmon River subbasin in the Payette National Forest in Idaho. Comments are Due December 20.

The USFS has also published a Revised Notice of Intent for an EIS on proposed invasive plant treatment activities in the Deschutes and Ochoco National Forests and the Crooked River National Grassland. The EIS evaluates site-specific treatments of invasive plants, including manual, mechanical, cultural, biological and herbicide treatment methods and the use of prescribed fire. A Draft EIS is expected to be available in January.

New ID Invasive Species Coordinator Position. ID is in the process of establishing an Invasive Species Coordinator position, and hopes to finalize it this legislative session. Meanwhile, Phil Bandy, Interdepartmental Project Manager in the state Department of Agriculture, has been facilitating the functions that would be associated with the position. *(Contact Phil at 208/332-8552.)*

AK Invasive Species Council: EPA has provided a grant to the University of AK (Fairbanks) to develop a state invasive species council. The concept was presented at a statewide invasive plant meeting, and there appear to be many interested agencies. A two-day organizational meeting is planned on January 31 in Anchorage to present the EPA grant, a proposed MOU, results of the survey of various state council models, and other organizational materials. *(Contact Michelle Hebert for more info, at 907/474-2423.)*

AK Plant Workshop. UAF Cooperative Extension Service IPM Program, the USFS, and several other partner agencies hosted the sixth annual CNIPM Noxious and Invasive Plants Workshop in Fairbanks, last October. Attendance was at an all time high (117 attendees), and by all accounts, the conference was a huge success! Next year's annual conference will be held in the Anchorage area. *(Contact Corlene Rose 907-786-6316 for more information.)*

WA Ballast Water Treatment. On December 9, the WA Environmental Soundness Workgroup reviewed data on the BalPur<sup>tm</sup> treatment process and recommended WDFW considering approving a trial shipboard installation. The treatment system uses electricity to generate chlorine and related oxidants from the chlorine in seawater to destroy the ballast water organisms, then uses sodium sulfite to reduce the oxidants and neutralize the toxicity. The method appears to be practical, kills most species, and is inexpensive, so it has many positive aspects. It has also been chosen by the USCG as the first technology to be tested at their Key West facility. UW has conducted research on this system and the WA Department of Ecology has reviewed toxicology tests on the system's discharge. It is important to begin developing and approving treatment methods, because WA state law requires all ships to treat or exchange their ballast water after July 1, 2007. *(For more information Contact Scott smith, at 360/902-2724 or Randy Marshall at 360/407-6445)*

### **Proposed National Legislation**

A variety of bills related to invasive species have been introduced in Congress, so there seems to be a demand for legislation, but not much has happened on these during the last quarter. Bills still under consideration include:

National Aquatic Invasive Species Act of 2005 (SB770). On April 13, a bill to reauthorize and strengthen the National Invasive Species Act of 1996 was introduced in Congress. The bill provides for rapid response when new invaders are discovered, for controlling those species established in our waters, and for researching pathways of introduction as well as prevention and control technologies.

National Invasive Species Bill (SB363). The “Ballast Water management Act of 2005” is essentially a subset of the NISA reauthorization, focusing on ballast water. It would require ballast water management plans, record books and volumetric exchange requirements. This bill has been getting a lot of attention.

Clean Water Act (CWA) Amendment (HR1749, SB 1269). EPA has repeatedly indicated that NPDES permits are not required when pesticides are applied to water in compliance with FIFRA, yet confusion still exists. The “Pest Management and Fire Suppression Flexibility Act”, would amend the CWA and clarify that pesticides applied in compliance with FIFRA are not “wastes”, but are performing their intended uses. This would negate the ruling on "Headwaters Inc. vs. Talent Irrigation District" by the 9th Circuit Court of Appeals, and allow treatment of aquatic vegetation to resume without a NPDES permit.

Aquatic Invasive Species Research Act. (HR 1591?) This act, which passed the Science Committee in the previous Congress, would establish a comprehensive research program to support federal, state and local efforts to combat aquatic invasive species. The program would focus on developing methods to prevent non-native species from entering U.S. waterways, as well as methods to detect, control and eliminate such species once they have invaded our waters. *(A good source for updated info on most of these bills is Allegra Cangelosi 202/464-4007)*

The Natural Resource Protection Cooperative Agreement Act (S. 1288) was introduced on June 22. This bill would fill a gap in authority by allowing the National Park Service to enter into cooperative agreements with neighboring landowners to prevent, control, or eradicate invasive exotic species on National Park Service lands or adjacent lands.

Salt Cedar and Russian Olive Control Demonstration Act (H.R. 2720). A new version of this act was introduced. It is hoped that once this compromise version of the legislation passes the House, it will be quickly enacted by the Senate as well. It would authorize \$80 million over 5 years to assess the extent, demonstrate control solutions, and determine economic means of biomass disposal for invasive salt cedar and Russian olive trees.

### National Activity

Genetically Engineered (GE) Grass. The Monsanto and Scott Companies have petitioned USDA for a Determination of Nonregulated Status for the genetically-engineered glyphosate-tolerant creeping bentgrass, *Agrostis stolonifera*. Creeping bentgrass is intended primarily for golf course use, but it is a serious weed in some parts of the country, and there is concern that it could escape from its intended use, and would no longer be controllable with glyphosate (Roundup).

Thanks to EPA's Corvallis lab, although USDA APHIS has approved almost every GE organism brought to it, this time, a October 12, 2005 Federal Register notice seeks information on the use of glyphosate in non-agricultural areas for weed control, to aid in drafting the **first full EIS in the U.S. on a genetically engineered crop**. The lab demonstrated that the GE seed traveled much farther (15 miles) than the promoter's claim of 500 feet. This also shows the need to challenge claims made by GEO supporters. The deadline for comments was November 14.

NOBOB Policy. The USCG recently published a policy for vessels declaring No Ballast On Board (NOBOB). These vessels are a problem because there are always residual organisms in the ballast water tank sediments which may be expelled at future times. (*A press release and fact sheet summarizing the details of the policy are available in PDF form at [www.uscg.mil/hq/g-m/mso/nobob.htm](http://www.uscg.mil/hq/g-m/mso/nobob.htm).*)

New International Wood Packing Materials (WPM) Standards: The Department of Homeland Security recently announced operational guidelines for the first phase of the new international standards for WPM. A phase-in-plan began on September 16, 2005. The standards are based on the International Plant Protection Convention and were designed to reduce the risk of pest introductions. (*Details on WPM are available at <http://www.aphis.usda.gov/ppq/wpm/import.html>.*)

States Sue the USDA for Better Invasives Control. NRDC and the states of NY, CT, CA, & IL have sued APHIS for failing to impose effective controls against destructive insects such as the Asian long-horned beetle, emerald ash borer, and pine shoot beetle, which enter the country in shipping pallets and other wooden packaging. They contend USDA has failed to comply with a federal law requiring a study of alternatives to any proposed action having environmental impact. Under the new rule, wooden shipping pallets and other wood packaging materials used in imports are to be heat treated or sprayed with methyl bromide. But neither method is completely effective at killing the insects, and the use of methyl bromide is also being phased out under an international treaty. The lawsuit seeks a court order directing the USDA to examine more effective, less environmentally harmful methods of preventing insect entry, such as replacing raw wood pallets with pallets made from plywood, processed wood or new or recycled plastic.

Habitattitude Gets Going. Habitattitude™, a new public education and outreach effort, encourages home aquarium owners to avoid discarding unwanted aquatic plants or fish into local aquatic ecosystems. The website helps consumers learn more about preventing the spread of ANS by recommending alternatives to releasing plants and animals, providing instructions on how individuals and clubs can get involved, and giving detailed

information on species that have previously created problems in aquatic systems. Habitattitude™ materials will also be displayed in aquarium stores, aquatic retail outlets, hobby magazines and nursery and landscape businesses across the country. *See the website at: [www.habitattitude.net/](http://www.habitattitude.net/)*

### **New Reports and Conferences**

**International Conference.** The 14<sup>th</sup> International Conference on Aquatic Invasive Species is being hosted by the USGS in Key Biscayne, Florida, May 14–19, 2006.

**New Government Accountability Office (GAO) - Report:** The sixth GAO report (GAO-05-1026T) on invasive species in the last five years was released September 9. The report “Invasive Species: Progress and Challenges in Preventing Introduction into U.S. Waters Via the Ballast Water in Ships”, found that ballast water exchange (BWE) is not a viable long-term approach to minimizing invasive species risks. Many ships are exempt from current BWE requirements; the USCG has not established alternate discharge zones for ships unable to conduct ballast water exchange; and BWE is not always effective at removing or killing potentially invasive species. Some treatment technologies show promise, but they face many challenges including the lack of a federal discharge standard for developers to aim for. As a result, despite its effectiveness concerns, BWE is still the only approved method for treating BW. Frustration over the federal government’s slow progress has led several states (including WA) to pass their own legislation authorizing ballast water management procedures that are more strict than federal regulations. *See the report at <http://www.gao.gov/cgi-bin/getrpt?GAO-05-1026>*

**Mandatory Labeling Scheme - Report.** On September 15, WWF-Australia released 2 new reports on invasive plant policy. A recent Federal Senate report on invasive species recommended that Australia examine the possibility of a national mandatory labeling scheme for sale of invasive species. The report presents the issues associated with labeling strategies, discusses the requirements for an effective mandatory labeling scheme, and suggests why a mandatory program is likely to be effective than a voluntary one. Download “Costs and Benefits of a Proposed Mandatory Invasive Species Labelling Scheme” from [http://www.wwf.org.au/News\\_and\\_information/Publications/PDF/Report/InvasivesMandatoryLabelling.pdf](http://www.wwf.org.au/News_and_information/Publications/PDF/Report/InvasivesMandatoryLabelling.pdf)

**Controlling Garden Plant Sales - Report.** A second Australian report examines why voluntary measures alone are insufficient to control the sale of invasive garden plants (the largest source of weeds in Australia). It examines the conditions needed to ensure a voluntary measure is successful, contains four national and local case studies, and concludes that due to the inherent constraints in the garden industry, voluntary measures alone will commercially disadvantage garden industry leaders. “Controlling the Sale of Invasive Garden Plants: Why Voluntary Measures Alone Fail” can be downloaded at

[http://www.wwf.org.au/News\\_and\\_information/Publications/PDF/Report/InvasivesVoluntaryMeasures.pdf](http://www.wwf.org.au/News_and_information/Publications/PDF/Report/InvasivesVoluntaryMeasures.pdf) (For more info contact Andreas Glanznig [aglanznig@wwf.org.au](mailto:aglanznig@wwf.org.au))

### **Species-Specific Issues, Activities and Updates**

Mitten crabs. USFWS posted a request for proposals to implement priorities in the National Management Plan for the Genus *Eriocheir* (Mitten Crabs). Proposals were due on June 17, 2005.

Puget Sound Colonial Tunicate. After last year's initial sighting of the colonial tunicate *Didemnum sp* in Edmonds, other tunicate colonies have been located in south Puget Sound oyster beds. This is alarming because within only a few years, this same tunicate has expanded to cover over 88 square miles of the Georges Banks fishing grounds in MA. Washington Sea Grant has held several workshops around the Sound to train divers on tunicate identification and reporting, and set up a database for divers to report their positive (and negative) *Didemnum* sightings, so we can get a better idea how widespread the invasion is. Over 2000 tunicate identification cards have been printed and are being distributed at workshops and dive shops (and to the EPA dive team). See <http://www.pnwscuba.com/critterwatchers/invasive.htm> for tunicate pictures, and [wsg.washington.edu/research/ecohealth/divers.html](http://wsg.washington.edu/research/ecohealth/divers.html) for the diver reporting form.

Puget Sound Solitary Club Tunicate. A second invasive tunicate, the solitary club tunicate *Styela clava*, has been found growing at three Washington Marinas in Blaine, Neah Bay, and Pleasant Harbor. This tunicate has caused huge problems for shellfish growers on Prince Edward Island, overgrowing mussel lines and stunting the growth of farmed mussels by more than 30%. Unlike *Didemnum*, *Styela clava* does not reproduce asexually and it can be removed easily without fear of spreading it. It seems to grow only in hard surfaces, such as marinas and shellfish farms.

Visual estimates last year noted only a handful of tunicates. A recent of all marina floats and boat hulls found tunicates as thick as several hundred individuals/m<sup>2</sup>. Pleasant Harbor marina has 270 boat slips covered with them, and 90% of the boats are also infested. Sea Grant is organizing local dive clubs to remove the club tunicate; the first dive was held at Pleasant Harbor Marina near Hood Canal on November 5. About 30 divers removed 1100-1200 pounds of tunicates, which the USFWS disposed of by burial near the Quilcene hatchery. Divers estimate only about 1% of the tunicates were removed, so obviously, much more effort is needed if eradication is expected. A number of oysters also encrust the boat slips, which makes the removal of tunicates alone difficult. This is the time to remove them, because warm weather causes them to begin spawning. For more information, contact Simon Geerlofs at 206/909-1902.

Zebra Mussel Response Plan Update. In September, a group of us met in Portland to work on the draft Zebra Mussel Rapid Response Plan for the Columbia River Basin. The plan summarizes rapid response tools available; describes tools that work in different types of water bodies; and defines rapid response activities, agencies that need to be involved and their regulatory authorities. The plan was submitted by the consultant on

November 18. We also established initial contact notification lists for each of the PNW states, to allow rapid agency organization if zebra mussels are sighted. (*For more information on the plan, contact Tina Proctor at 303/236-4515.*)

Hood Canal Clam. The asian clam *Musculista senhousia*, has been found in moderate abundance in Hood Canal. Descriptions can be found at:

<http://www.calacademy.org/research/izg/SFBay2K/musculistasenhousia.htm>

New Parasitic Isopod. A new prolific parasitic isopod has been found that threatens to decimate native mud shrimp populations. *Orthione griffenis* may be the largest bopyrid isopod ever seen on the West Coast. Scientists have been able to estimate the increasing prevalence of the isopod in Willapa Bay, WA, and demonstrate a corresponding decrease in the number of mud shrimp. *Orthione* enters the shrimp gill chamber under the carapace, ultimately destroying the shrimp's ability to reproduce. (*For more information contact John Chapman at [john.chapman@oregonstate.edu](mailto:john.chapman@oregonstate.edu)*)

Knotweed Workgroup. Japanese and giant knotweeds are a serious problem not only in the Pacific Northwest and East Coast, but also in Europe, where a biological control program is being developed. The U.S. Forest Service is currently supporting research to bring these biocontrol agents to the U.S. This is a great opportunity for us, because the most expensive research, foreign exploration and initial screening of agents, has already been completed by the Europeans. EPA has been asked to join a working group being formed to discuss the best approach to moving the program forward. We hope to have our first meeting in January, when experts from the East coast will be available. (*For more information contact Fritzi Gravstad at 360/642--3920*)

AK Loosestrife. Purple loosestrife was recently found growing wild in Alaska for the first time near Anchorage. It is on the noxious weed list in nearly every state, and sales of the plant have been banned in 27 states. In 2004, the UA (F)'s Extension Service decided the danger was too great and officially placed purple loosestrife on Extension's "do not plant" list. This fall about 30 people from 15 different agencies banded together to conduct a loosestrife removal.

Jamestown S'klallam Knotweed and Butterfly Bush Removal. Under an EPA grant to the tribe, the tribe has been working in the Dungeness River watershed to remove invasive knotweed and butterfly bush. Both species crowd out everything around them, and the butterfly bush in some areas has grown to over 8 inches in diameter, becoming more of a tree than a shrub (gardeners take note!). This season the tribe worked from the river mouth to river mile 8.5, revisiting previously treated sites from 2004, and mapping and treating sites. Sufficient money remains to continue the project next year.

Black Carp Rule. The USFWS extended its public comment period for the black carp rule through December 16, 2005. It is proposing to add all forms of live black carp (*Mylopharyngodon piceus*), including gametes and viable eggs, to the list of injurious fish under the Lacey Act. This is a large, long-lived fish (up to 5 feet long and 150 pounds), with a specialized diet of mussels and snails. There is increasing evidence that the species may already be established Louisiana's waters and the Mississippi River Basin. No

controls are known to be effective and feasible, so prevention is key. The original FR notice and related documents can be accessed at:

<http://www.fws.gov/contaminants/Issues/InvasiveSpecies.cfm>

Green Crab. Green crab Watch cards have been printed and are now available from Pacific States Marine Fisheries Commission. This is the latest addition in a series of watch cards; cards are now available for at least 15 potential PNW introductions. (*Call 503/650-5400 to obtain copies*).

New Zealand Mudsail. The mudsnail has been established in many areas of the Snake River for some time, but it has now also spread into the Deschutes River in Oregon. In New Zealand, a parasite keeps them in check, but here they have been known to reach densities of up to 500,000 per m<sup>2</sup>. The snail is not considered good fish food because it is very small and fish do not break it open. Once eaten, it can survive passage through the fish gut because it closes the shell with an operculum.

Blackberry Rust. The new blackberry rust first noticed on the southern Oregon coast last year has now spread to at least 14 Oregon counties and southwest Washington. The rust looks different from others, and is much more damaging to the blackberry bushes. It causes wine colored spots on the top of infected leaves, and round yellow-cream spore masses surrounded by a violet tinge on the underside. It is still unclear whether the positive impacts will outweigh the negative ones. There is research underway in Oregon to determine whether the rust will reduce only the impact of weedy blackberries, or whether it will also pose a threat to native blackberry and related species. *For more information and pictures, see <http://www.nwipm.info/blkrust-05.htm>*

Alaskan Sawfly Biocontrol: A Canadian wasp will be used as a biological control for sawflies that eat the leaves on birch trees all across Anchorage, AK. The Canadian wasps insert their eggs into the larvae of the sawflies and then consume their hosts from the inside out.

Interesting Fact: It has been estimated that economic losses caused by invasive alien species account for almost 5% of the world's combined gross national product, or some US \$1.4 trillion a year. This situation is expected to worsen rapidly, with increased movement of species around the globe through trade, transport, travel and tourism, and as existing invasives spread and grow, exacerbated by climate change and habitat destruction. (*Mail and Guardian article 8/24/05*)