



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
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Seattle, Washington 98101

Reply To
Attn Of: ECO-083

Informational Memo

Subject: Regional Invasive Species Update #9: January-March 2005

From: Joan Cabreza
Regional Invasive Species Coordinator

To: R10 ETPA Management Team

ecc: Internal EPA mail group, & interested outside parties

This memo summarizes some of the recent national, regional and R10 state Invasive Species (IS) Program activity. I will happily include updates or activities from any reader who submits them. Credit for any errors is entirely mine.

EPA Activity, Projects & Initiatives

EPA TMDL Lawsuit. Section 303(d) of the Clean Water Act requires states to develop a list of all waters not meeting their water quality standards. EPA then has 30 days to approve or disapprove the list. If EPA disapproves the list, the agency is required to add other impaired waters. In April, 2004, the Ocean Conservancy challenged EPA's approval of California's impaired waters list for 2002 as "arbitrary [and] capricious" because the state did not include several waters the group claims are impaired due to the presence of biological pollutants -- in this case, invasive species. The dispute will determine whether EPA and states must set total maximum daily loads (TMDLs) for waters affected by exotic species. Last month environmentalists agreed to suspend their litigation, and in return EPA wrote a letter to California requesting that the state "reconsider" its decision not to list several waters as affected by invasive species. The stay of litigation will remain in place until California releases its 2004-05 impaired waters list late this spring. EPA has never formally taken a position on whether invasive species are 'pollutants' under the Clean Water Act. The case is significant because there is no case law on this issue, and very little case law on biological pollutants in general.

Ballast Water Court Decision. In the latest act of a long dispute between EPA and various environmental groups, on April 4 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 Clean Water act. EPA feels Congress intends the Coast Guard to be responsible for ballast water regulation, and the decision will very likely be appealed.

Regional Invasion Pathways Project. As part of a historical invasion pathways study, ballast water samples are being collected for genetic analysis from various ships in WA and OR.

Morphological taxonomy has many disadvantages compared to DNA taxonomy, and it is hoped to eventually build an archival DNA database that can be used for ballast water enforcement, risk assessments, and a variety of other activities. DNA of invasive organisms from various west coast estuaries is also being compared to DNA from San Francisco Bay organisms. If WA and OR population DNA is a clone of San Francisco organisms, this would indicate they are likely the result of secondary introductions from San Francisco Bay; slight genetic variation would indicate independent introductions. Phase 1 of the project (great Lakes) has now also received an additional \$300k in funding, allowing them to increase the number of organisms studied from about a dozen to about 100.

Environmental Indicators: Henry Lee, Gretchen Hayslip and Michael Rylko have developed two non-indigenous species (NIS) indicators for use in EPA's national "State of the Environment" report. This is the first time the report has contained an invasive species indicator. The indicator allows a comparison of invasiveness in various estuaries. The indicators are relatively simple: % abundance of NIS individuals relative to total abundance individuals within a sample, and % composition of NIS species as a % of all species within a sample. The PCEIS database was used to generate data for the indicator. (*Contact Henry Lee 541-867-5001 for more information*)

NISWG* National Conference Proceedings . Proceedings will be available in early 2005 in hard copy and on CD. They will include a copy of the dozens of action items identified at the conference and the revised OWOW national strategy.
(*EPA national Non Indigenous Species Workgroup, chaired by Henry Lee)

Tui Chub. Alan Henning is working with Office of Water, ODFW and ODEQ so that the USFS can apply rotenone to Diamond Lake, a lake located north of Crater Lake OR, to deal with a problem with Tui chub, an invasive fish species. Alan has been working on this project for several years, including reviewing of the EIS with the NEPA team. (*Contact Alan at 541/686-7838*)

RGI Grants. This year the Regional Geographic Initiative received about a dozen invasive species grant proposals out of the 100 or so submitted. This is a dramatic increase over the two or three normally received, which shows either the growing awareness of the problem, a growing need, or both. Projects should be selected soon.

Invasive Species Brown Bag # 5: Noxious Weeds Training. Sasha Shaw presented the King County Noxious Weeds training to EPA on February 2. Response was very positive, and we had a packed room! The county will be holding several noxious weed identification and control methods training sessions in the spring and early summer. (*Contact Sasha at 206-263-6468 for more info*).

Garden Show Outreach: EPA volunteers staffed booths for the Tacoma and Portland Home and Garden shows, held in January and February. These were HUGE shows, so there was a good opportunity for outreach. They also passed out several hundred publications on invasives including garden weeds, ivy and knotweed.

Volunteer Activities: I'll resume scheduling this year's ivy, knotweed and other field activities in May, now that weather is improving and days are a bit longer.

Water Talk Newsletter. I provided three articles on invasive species for EPA's Water Talk newsletter, one on impacts of invasive species on water quality, and two monthly activity updates. The updates are going to be a regular feature of the newsletter, and will hopefully increase visibility of the invasive species issue.

Speeches/Presentations This Quarter:

02/09/05 AK Forum - Anchorage, AK (national/regional invasives activity update)
03/1/05 Sand Point Garden club - Seattle, WA (invasive plants and gardening)
03/11/05 Aquatic Plant Management Society -Denver, CO (invasives and water quality)
03/17/05 Garden club- Kirkland, WA (invasive plants and gardening)
03/31/05 Puget Sound - Georgia Basin Research Conference - Seattle, WA (Invasion pathways study/ genetic tool development)

Upcoming Presentations:

04/04/05 Soc. for Ecological Restoration conference - Seattle (national/regional update)
05/01/05 Woodland Park Zoo - Teacher's workshop on biodiversity
05/11/05 Corps/EPA National Workshop, Portland, OR (invasives implications for EPA)
05-19/05 ORD Science forum (with Mike Blum)- Research Triangle Park (genetic tool)

Region 10 State Activities

New WA Invasive Species Council Bill. SSB5385, which would create a Washington Invasive Species Council, was introduced in the State Legislature in January. The Council is a joint effort between local, tribal, state, and federal governments, as well as the private sector and non-governmental organizations. The purpose is to foster cooperation, communication, and coordinated approaches for the prevention and control of invasive species; the Council would not usurp the individual mission of any of its member organizations or change existing statutory authorities. At the moment, EPA is listed as a non-voting ex-officio member. It is currently unclear how the currently existing WA ANS Committee will relate the Council. On April 5, the bill passed the Senate and the House Natural Resources Committee, was in the House Appropriations Committee, and had not received a hearing. It was, however, funded in the Senate version of the budget--and is therefore still "alive." House consideration of SSB 5385 is still needed in order for the bill to pass. (Go to <http://www1.leg.wa.gov/Legislature/> to track this bill.)

New WA Prevention Bill. HB1730, a new bill related to preventing and controlling aquatic invasive species and algae has just passed in the Legislature. It will establish and fund an aquatic invasive species prevention account and a freshwater algae control account by imposing additional taxes on boater registrations. (Go to <http://www1.leg.wa.gov/Legislature/> to track this bill.)

New Oregon Ballast Water Bill. Amendments to the OR ballast water law were introduced in the OR legislature January 12. The main provision of this bill is a modification of the coastal exchange requirement, to bring OR into line with other coastal states, British Columbia and AK. (A copy of HB 2170 is located at <http://www.leg.state.or.us/05reg/measpdf/hb2100.dir/hb2170.intro.pdf>.)

WA ANS Committee. The state Early Detection and Rapid Response plan has been reorganized and expanded, and will be shared with the entire committee at the April 14 semi-annual meeting. It contains many new tasks for WDFW, and one of the next priorities will be finding a way to fund it. We hope to request funding in 2006.

Idaho Strategic Plan Development. The statewide Idaho Action Plan for Invasive Species was completed in January, 2005. It contains 22 tasks focused on legal structure and funding; coordination of state programs; modification of existing programs; and education, training and technology transfer. This is a product of last year's Governor's Summit on Invasive Species. *(An executive summary is available now at www.agri.idaho.gov.)*

Ballast Water Protocol Development. The Oregon Aquatic Bioinvasion Policy Institute is working on protocols for shipboard testing of ballast water treatment technologies. They are working with experts from a number of other countries, including Singapore, New Zealand and Australia, to take advantage of work being done globally. The protocols will allow data to be comparable between various tests, and they will be available for review sometime in November or December. *(Call Mark Sytsma for more info at 503/725-3833)*

Ballast Water Fact Sheets. The Prince William Sound Working Group (AK) has updated their NIS website to include 15 fact sheets that describe various ballast water treatment technologies. *(Obtain them at <http://www.pwsrcc.org/NIS/bwtoptions3.html>)*

AK Field Guide. Dave Secord and Kristin Hemmelgarn of UW have developed an Invasive Species Field Guide for Alaska Fish and Wildlife. The plasticized field guide for Washington State, released in Fall, 2004, was used as a model. *(Contact Bob Piorkowski 907/465-6109 for more info on the database)*

New Brochure on Invasive Weeds: King County, WA has a new, colorful brochure available for groups doing outreach on invasives in King County, called "Neighborhood Bullies: Invasive Weeds in Urban Lands". The brochure features 14 noxious weeds found in urban King County, with a description, photo and line drawing, and explains how weeds spread and damage natural areas, and what we can do about it.

If you would like copies to distribute, contact Sasha Shaw(206-263-6468) with the amount desired and the date needed.

King County WA 2005 County Noxious Weed List. The County Weed Board approved the 2005 weed list with only a few changes from last year. New weeds that require control in the County are grass-leaved arrowhead (*Sagittaria graminea*) and common reed (*Phragmites australis*). New weeds on the educational "Noxious Weeds of Concern" list are butterfly bush (*Buddleia davidii*) and curly-leaf pondweed (*Potamogeton crispus*). The county and state weed lists can be found at <http://dnr.metrokc.gov/Weeds/laws.htm>. *(Contact Steve (206-205-6927) or Sasha (206-263-6468) for more information.)*

OR Weed List Update. The State Weed Board has officially added four new species to the OR state list: yellow floating heart, yellow flag iris, garlic mustard, and policeman's helmet. This brings the total number of listed noxious weeds in Oregon to 105, roughly 20 more than just a decade ago. *(For more information, contact Tim Butler at 503/986-4621)*

Alaska Website. The ADF&G invasive website should be up and running in June. The initial Alaska IS database will be available on the website, and there will also be a link to the Prince William Sound Advisory Council. (*Contact Bob Piorkowski 907/465-6109 for more info*)

2005 SER-NW Conference. Invasives are finally being recognized as major problems in restorations. The week-long Society for Ecological Restoration conference "Sustainability and Restoration: A Practical Partnership for the 21st Century" was held in Seattle, April 4 - 8. It included a noxious weed field trip followed by a whole day of sessions devoted to invasive plants. <http://www.engr.washington.edu/epp/ser/sym-invasives.html>

AK- Kenai Invasive Plant Inventory. The Kenai Peninsula Cooperative Weed Management Area (KP-CWMA) is currently inventorying non-native invasive plants on the southern and central peninsula. They are also considering a demonstration project to investigate management techniques for reed canarygrass, using the restoration project on Slikok Creek as a possible test site. (*Contact Hansel Klausner, at 907-235-8177 ext.5. for more information*)

Grants. The Center for Invasive Plant Management (CIPM) announced availability of grants up to \$5,000 for Cooperative Weed Management Areas (CWMA) in the western U.S. Deadline for online application was March 4, 2005. This year CIPM's CWMA grant program focuses on restoration / reclamation / revegetation of invasive-plant-dominated lands. (*For more information contact Janet Clark at cipm@montana.edu*)

Invasive Weed Certification Program. The Eastern Oregon Agricultural Research Center in Burns, OR, has established a new Invasive Weed Certification Program. The objective is to stimulate and facilitate the development of local working groups throughout the five-state region, and to teach and implement ecologically-based invasive plant management. This is a "train-the trainer" program that will assist people who organize and facilitate working groups in their communities and focus on implementing ecologically-based invasive plant management. (*For more information contact Roger Sheley at (541) 573-8938/ roger.sheley@oregonstate.edu.*)

AK Forum on the Environment. This year's Forum was held February 7-11, 2005, in Anchorage. For the first time, the forum included invasive species sessions, with particular focus on marine organisms, fresh-water fishes, rats, and noxious weeds. Sponsored by a coalition of State, Federal, Tribal and private organizers, it included presentations and panels, a session on environmental career opportunities, a variety of organizational meetings, training classes, social events, vendor displays/information booths, and a "talking circle" with community leaders and Tribal elders. This year's forum attracted nearly 1300 participants. (<http://www.akforum.com/>)

Pacific Northwest Invasive Species Book. The PNW invasive species book, edited by UW, was delivered to the University of Washington Press on December 22, 2004. It has been sent to China for printing and is expected to be available by next Christmas. It will discuss 100 of the least wanted species, and includes both terrestrial and aquatic species.

OR/ID Boat Inspection Program. A boat inspection work plan is being developed for CA, OR and ID. The work will include compiling a listing of all agencies, organizations and groups having access to trailered boats; and development of a training/education curriculum for portable

inspection training programs; and completion of two training workshops that will produce 50-100 trainers who will then be able to train others in their work units.

(For more information, contact Paul Heimowitz, 503/872-2763)

Oregon Weed Awareness Week. Oregon Governor Kulongoski has proclaimed June 19-25 "Weed Awareness Week" in Oregon. *(More details are available at: <http://www.se-eppc.org/news/niwaw.html>.)*

National and International Activity

National Invasive Species Bill. S363, the "Ballast Water management Act of 2005" was introduced in Congress in February. It would require ballast water management plans, record books and volumetric exchange requirements.

National IS Council Bill. BS507 has been introduced that would, among other things, establish the National Invasive Species Council. The Council has been operating for several years, of course, but it was established pursuant to Executive order (EO13112), and as such, has no legislative basis.

Federal Noxious Weed Bill Update. The Noxious Weed Control and Eradication Act (PL 108-412), passed on October 30, 2004, directs the secretary of Agriculture to establish grant and agreement programs for regional, state and local weed control and eradication programs. It authorizes \$7.5 million for grants and \$7.5 million for agreements, for each year 2005-2009. However, as of March, no funds have been appropriated for 2005 and it is unclear whether it will be in the president's budget for 2006.

FWS Non-Native Bird Species List. On March 15, the USFWS published a final list of bird species to which the Migratory Bird Treaty Act (MBTA) does not apply, because these birds are not native to the United States. Of the 125 species on the final list of species exempt from MBTA regulation, only 17 are known to have established self-sustaining breeding populations in the United States. The mute swan is the only one of these that has ever been treated as federally protected under the MBTA. Other prominent and well-known species on the list are the Eurasian collared-dove and rock pigeon. See 50 CFR 10.13 for the list of migratory birds protected under the MBTA. *(Call Nicholas Throckmorton for more info at 202/208-5636 or see <http://migratorybirds.fws.gov>.)*

New Internet Sales Tracking Tool. USDA has noted a link between growing internet sales and the spread of invasive plants. Next-day courier services make it possible to ship organisms coast-to-coast or even from abroad with little scrutiny. APHIS has now created a system to identify and track web pages and internet operators selling outlawed plants. The high-tech enforcement tool, called the Agricultural Internet Monitoring System (AIMS), was unveiled in January. US sellers of regulated plants are now beginning to get APHIS e-mail notices warning them a federal permit is needed to sell such plants.

National Weed Awareness Week. February 25 - March 1 marked the Sixth Annual National Invasive Weed Awareness Week. The purpose was to provide opportunities for networking, and to brief key federal agencies, exchange information and research, and meet with Congressional representatives.

Species-Specific Projects/Updates

Caulerpa. The USDA recently announced a comment period on two petitions requesting the addition of either the whole genus *Caulerpa* or the entire species *Caulerpa taxifolia* to the APHIS list of noxious weeds. *Caulerpa taxifolia* is a tropical, marine seaweed that can be exceptionally invasive when introduced into a new marine habitat. A group of invasive species scientists and resource managers, submitted these two petitions to APHIS in April, 2003. The comment period closed December 27, 2004, but it sets an important precedent, as it represents the first time a citizen noxious weed-listing petition has been put out for public comment in the Federal Register before USDA's decision.

Knotweed. The Green-Duwamish Watershed Cooperative Weed Management Area (CWMA) received USDA funding for a coordinated knotweed control project in the watershed last July. They surveyed 29 miles of the Middle Green River riparian corridor from Tacoma Public Utilities Headworks Dam to Auburn Narrows Park, and identified and treated 15 knotweed infestations along the mainstem of the Middle Green River. Eight sites along Soos Creek and Crisp Creek and 4 sites along arterial roads that connected knotweed infestations were also treated. Twenty two upland and roadside knotweed sites located over 500 feet from minor tributaries were also surveyed and may be scheduled for treatment in 2005.

Puget Sound Tunicate (sea squirt). In October, a small patch of new invasive colonial tunicate, *Didemnum lahillei*, was discovered growing on an underwater wreck in Edmonds Marine Park. This species currently covers many square miles in the Georges Bank in the Atlantic, and poses a huge risk to shellfish growers. A state Tunicate Response Advisory Group was formed in November, and the tunicate was ultimately destroyed. The colony is now believed to be dead, but other colonies have now been located elsewhere, and there is some question as to how long it has been quietly growing in the Sound. It is abundant in southern BC, and in some oyster beds in the south Puget Sound. WDFW has provided some funding for diver training and tunicate identification workshops, and a diver identification card is under development. On April 6, the first of 5 Puget Sound workshops was held in Shelton. *For more information, contact Scott Smith (360/902-2724). A website, with pictures, is also available at:*
<http://www.pnwscuba.com/critterwatchers/invasive.htm>

Tunicate Conference. An International Invasive Sea Squirt Conference, focusing on the biology, bio-geography, and ecology of invasive ascidians will be held April 21-22, 2005, at Woods Hole Oceanographic Institution (WHOI), in MA. (This is the Puget Sound problem tunicate.)

Zebra Mussel Response Plan. The Western Regional Panel has contracted for development of a zebra mussel Rapid Response Plan for the Columbia River Basin. It is expected to summarize rapid response tools available; contain sections on tools that work in different types of water bodies; clearly list what agencies need to be involved and what their regulatory authorities are; give examples of successful early eradication; and give specific instructions to particular states, such as those affected by the Headwaters vs. Talent decision in the Ninth Circuit Court. (Contact Tina Proctor at 303/236-4515 for more information.)

Spartina Conference: The Third International *Spartina* Conference was held Nov. 8-10 in San Francisco. The conference has published a full-length, peer-reviewed proceedings volume from the meeting, available for \$60. (Learn more at <http://www.spartina.org/2004conference>)

Strawberry Latent Ringspot Virus. The strawberry latent ring spot virus, a problem for the past 30 to 40 years in Europe, has just been discovered in North America. The virus was found on 17 percent of California strawberry samples and on four percent of British Columbia strawberries, as well as in a variegated mint. The virus, which can dramatically decrease yields, is spread by nematodes. Scientists believe that the virus has been in this country for many years on an ornamental mint sold throughout the United States without anyone noticing.. While the virus has only been found on mint and strawberries in the US, it can infect many broadleaf crops. (Contact Sharon Collman for more info at 206/553-0038)

Other NEW Reports and Conferences

Zebra Mussel Economic Impact Report. A report “Potential economic impacts of zebra mussels on hydropower facilities in the Columbia River Basin”, prepared for the Bonneville Power Administration, was produced in February. (Contact Stephen Phillips (503/650-5400 for more information)

New Economics Report: A new report from the EPA Center on Environmental Economics, the “Report on Economic Impacts of Invasive species” (1/14/05) by Lovell and stone is available at <http://yosemite.epa.gov/EE/epa/eed/nsf/WPNumberNew/2005-02?openDocument>

New GAO Report. The sixth GAO report on invasive species in just the last five years was released in February. Report # GAO-05-185 is titled “Invasive species: coordination and cooperation are important for effective management of invasive weeds” *To view or download the document, go to www.gao.gov/cgi-bin/getrpt?GAO-05-185*

ASTM Invasive Species Symposium: The ASTM "Symposium on Invasive Species: Their Ecological Impacts and Alternatives for Control" will be held April 19-20, 2005, in Reno, Nevada. They are seeking international participation, and plan to focus on both terrestrial and aquatic habitats and species. (Information is available at: <http://www.astm.org/>)

14th International Conference on Aquatic Invasive Species. The conference will be held in Florida, in Spring, 2006. They are requesting technical abstracts by May 31, 2005.

PBS Special. On **Wednesday, April 20** from 9-11pm, (check local listings), PBS will premiere National Geographic’s Strange Days on Planet Earth, winner of the Wildscreen 2004 film festival Panda Award for Best Series and the Natural History Museum One Planet Award. The series examines humans impacts on the earth’s ecosystems. Each of the four one-hour episodes is constructed as a high-tech detective story, with the fate of the planet at stake. Episode 1 deals with alien invaders. (Check <http://www.pbs.org/strangedays> to watch a trailer for the series).

SUGAR LAND, TX - A ship ballast water treatment (BWT) system from Severn Trent De Nora, LLC has been selected for use in the first validation tests of the Environmental Technology Verification protocols for BWT systems, according to a statement from Severn Trent.

The US Coast Guard and the US Environmental Protection Agency have developed draft protocols for verifying performance of BWT systems as

part of a program to help develop effective environmental technologies through independent tests of performance claims, the statement said.

According to the statement, the system generates biocides, meters and analyzes the residual level of both biocides and neutralizing agents, and logs the performance of the overall BWT system.

The pilot validation test will be conducted at the US Naval Research Laboratory test facility in Key West, FL; Severn Trent De Nora, LLC is a joint venture of Severn Trent Services, Fort Washington, PA, and Gruppo De Nora, Milan, Italy, providing marine and offshore industrial water disinfection services.