



## ***AQUATIC INVASIVE SPECIES NEWS***

***10/15/14***

### **DREISSENID MUSSELS**

#### **Mussel Discoveries in Texas, South and North Dakota, Kansas, Minnesota and Britain**

##### [Quagga mussel veligers discovered in angostura reservoir, SD \(10/3/14\)](#)

PIERRE, S.D. - Water sampling performed by the U.S. Bureau of Reclamation (BOR) has resulted in the discovery of larval quagga mussels in Angostura Reservoir in the southern Black Hills. At this time, Angostura Reservoir is designated by the South Dakota Game, Fish and Parks (GFP) as suspect for quagga mussels. Additional sampling is currently underway by GFP and BOR. A second positive sample must be obtained before the water is listed as positive for the presence of quagga mussels. If no additional quagga mussels are found for a period of three years, GFP would designate Angostura Reservoir as negative for quagga mussels....

Related story [HERE](#) and USGS specimen information and map [HERE](#)

UPDATE: [HOT SPRINGS, SD - Federal and state aquatic experts went to Angostura Reservoir in the southern Black Hills this week in search of a troublesome little mollusk called the quagga mussel \(10/8/14\)](#)

##### [Zebra Mussels Discovered In Pomona Reservoir, KS \(10/3/14\)](#)

TOPEKA— The Kansas Department of Wildlife, Parks and Tourism (KDWP) has confirmed the presence of invasive zebra mussels in Pomona Reservoir in Osage County. A small adult group was discovered on a single rock by U.S. Army Corps of Engineers

(USACE) staff on September 23 in Management Park cove near the south end of the dam....

#### [Zebra Mussels Spread to Lake Waco, TX \(10/1/14\)](#)

ATHENS—Lake Waco has become the seventh lake in Texas to be infested by invasive zebra mussels. City of Waco employees found suspected zebra mussels on September 26, and Texas Parks and Wildlife Department (TPWD) employees confirmed their presence Monday.

Related: [Waco officials will try to smother invasive zebra mussels \(10/6/14\)](#)

USGS map can be found [HERE](#)

#### [Young Zebra Mussels Again Found in Red River, ND \(9/29/14\)](#)

Aquatic nuisance species surveillance efforts along the Red River in eastern North Dakota have again detected the presence of zebra mussel young at Wahpeton. North Dakota Game and Fish Department ANS coordinator Fred Ryckman said zebra mussel larvae were also present in the same area in both 2010 and 2011, but were not found in the past two years....

#### [MNDNR tries to keep up with recent spree of lakes infested with zebra mussels \(9/30/14\)](#)

On Tuesday, Lake Independence became the latest lake to join the DNR's list of infested lakes. It's become a weekly alert in the Twin Cities: Another lake infested with zebra mussels. This week, it's Lake Independence in the west metro. Last week, it was Lake Waconia and White Bear Lake. Earlier last month, it was Christmas Lake and Lake Virginia, smaller lakes in the west metro....

#### [Invasive quagga mussel species found for first time Great Britain \(10/9/14\)](#)

A black-and-white mussel native to the Black Sea - which has the capacity to wipe out other species and cause millions of pounds of damage - has been found in Britain for the first time....

#### [Zequanox® Achieves 100% Mortality for Invasive Mussels in Minnesota Lake \(9/30/14\)](#)

DAVIS, Calif., September 30, 2014 – Marrone Bio Innovations, Inc. (MBI) [Nasdaq: MBII], a leading global provider of bio-based pest management and plant health products announced today the successful results of a Zequanox treatment conducted at Christmas Lake in Shorewood, Minn.....

Related stories [HERE](#) and [HERE](#)

#### [Lake Powell is getting out musselled by quaggas \(10/8/14\)](#)

At no bigger than a stale peanut, quagga mussels pack quite a punch, and they are here to stay. The National Park Service regularly conducted “Mussel Blitzes” in which NPS scuba divers would inspect the docks and marinas in the area for the invasive quagga mussel. In June of 2013, during an inspection of Antelope Point Marina, more than 35 NPS divers found eight quagga mussels on the first day of the four-day inspection. [Note: Full article for purchase]

[Aquatic mussels to be targeted in Alberta campaign \(10/7/14\)](#)

Zebra and quagga mussels are on Red Deer and Mountain View counties’ invasive species radar. The councils of both municipalities are asking their fellow members of the Alberta Association of Municipal Districts and Counties (AAMDC) to support their bid for a more robust Aquatic Invasive Species (AIS) provincial program....

[Written off as doomed, native mussels survive zebra mussel invasion in Lake St. Claire \(10/9/14\)](#)

.....In the case of the Great Lakes, invasive species in the form of zebra mussels and quagga mussels came close to wiping out native mussels, already in a perilous state when the invaders arrived in the late 1980s and early 1990s. But significant remnant populations of native mussels have been discovered in the last 15 years and appear to be thriving. One of the lessons for the future, suggested Zanatta, is that native species might be more resilient than previously thought in terms of surviving the onslaught of invaders.....

[Hoping for vacancies at 'heartbreak hotels', CT \(9/27/14\)](#)

.....The lake authority had hoped to run a trial program this year that would have injected carbon dioxide into the brook running from Laurel Lake in Massachusetts into the Housatonic. There's hope that treatment could kill the mussels in their nymphal stage, and thus check their spread down river. Because of liability issues, Marsicano said, the project didn't start this year. He's hoping it can begin in 2015. It wouldn't be a silver bullet. But it might spare Candlewood and other uninvaded places along the Housatonic from zebra mussel heartbreak.....

[Team passionate about shipwreck preservation studying zebra mussels on Whaleback in Lake Superior \(9/29/14\)](#)

.....The team has been diving on the site for over 5 years, examining the exact same spots each year on the shipwreck. GLSPS President Phil Kerber says the mussel populations have fluctuated almost every year. "Most of the time it does increase, unfortunately, because of the problem we do have," said Kerber, while team members packed up their dive gear. Kerber says the 1st two years saw a population increase, which tapered off the third year, then dropped the fourth year, and increased again last year....

[Protection from mussel invasion championed by Kelowna, BC Chamber \(9/26/14\)](#)

At this weekend's Canadian Chamber of Commerce AGM in Charlottetown, PEI, the Kelowna Chamber of Commerce delegation will call for increased protection of western Canada's fresh waters from zebra and quagga mussels. Quagga and zebra mussels pose a serious and costly threat to aquatic ecosystems, salmon populations, tourist destinations, hydro power stations and other infrastructure facilities throughout western Canada....

## **BOAT INSPECTION NEWS**

[Monterey County water agency fights mussel threat \(9/10/14\)](#)

The war against invasive species of mussels that could cause a disaster for area waterways likely will be raised a level Tuesday if the Board of Supervisors of the county Water Resources Agency adopts a resolution authorizing the agency to seek state grants. The grant money would be used for the mussel prevention program at Lakes Nacimiento and San Antonio....

[Lake Tahoe boat inspections return to launch ramps for fall and winter \(9/25/14\)](#)

Beginning Oct. 1, boat inspections at Lake Tahoe will move to select launch ramps and winter hours will begin. Tahoe RCD inspectors will be stationed at the Cave Rock boat launch from 6 a.m. to 4 p.m. seven days a week, weather permitting. No inspector will be stationed at Lake Forest boat launch from Sept. 8 through Jan. 2, 2015 due to a rehabilitation project. Inspections will be available at Lake Forest once the project is complete. Please call the hotline for availability of alternative inspection options.....

## **MARINE**

[Cooking with green crabs \(10/8/14\)](#)

The good news here is that for pennies we have an almost infinite local source for making crab risotto, etouffee, gumbo, soupe de poisson, cioppino, and bouillabaisse, any number of wonderful fish dishes made especially delicious with local crab stock at a cost of almost nothing. More good news: the crab risotto you serve your family does the ocean a world of good.....

[Essex, MA puts out contract on invasive green crabs \(10/7/14\)](#)

Green crabs: A nuisance for the ecosystem, but a boon to the local economy? Well, the town of Essex has now entered a deal with the Massachusetts Division of Marine Fisheries to subcontract for the trapping of an invasive species of crabs.....

[Dynamic Imaging Helps Identify Green Crab Larvae on Maine's Coast \(8/5/14\)](#)

You may have read [this recent Portland Press Herald article](#) about Maine's green crab problem. If you did, you learned how the invasive species is a real threat to Maine's clamming industry. If you didn't read the article you need to know that the green crabs prey on clams and are causing a serious problem, but the good news is that there's a team of experts working to find a way to keep the crabs from destroying the clams and other shellfish and marine life along Maine's coast. Although they have been reported in Maine for more than a century, scientists speculate the green crabs have been able to multiply and spread due to Maine's warmer ocean temperatures over the past few years....

[NOAA, UNC-Wilmington study finds warming Atlantic ocean temperatures could increase expansion of invasive, native species \(9/15/14\)](#)

Warming water temperatures due to climate change could expand the range of many native species of tropical fish, including the invasive and poisonous lionfish, according to a study of 40 species along rocky and artificial reefs off North Carolina by researchers from NOAA and the University of North Carolina-Wilmington. The findings, reported for the first time, were published in the September issue of [Marine Ecology Progress Series](#).

[Drakes Bay Oyster Company, CA Settles Dispute With National Park Service, Will Close At End Of 2014 \(10/6/14\)](#)

POINT REYES STATION (KCBS)— The National Park Service announced a joint filing of a settlement agreement Monday that would end ongoing litigation between Drakes Bay Oyster Company pending a U.S. District Court's approval....

[The Great Lakes Ballast Water Challenge Explained \(9/25/14\)](#)

Members will be aware of the continuing progress of the Ballast Water Treatment Convention along the road to ratification at the IMO, with the present information showing 40 nations representing 30.25% of global GRT having ratified. The upcoming MEPC in October of this year will be a key meeting at which the present issues will again be the subject to intense debate....

[Coast Guard remarks- 3rd Annual Ballast Water Management Tech North America Conference \(10/2/14\)](#)

.....“We are in the implementation phase of the regulation. If you have a vessel that has a ballast water capacity of 1500-5,000 cubic meters, your compliance date is the first dry docking after January 2014,” said Allain. “If you have a dry dock coming up, you need to be making plans for how you will comply with regulations. There are several ways you can do that” ...

Related Story: [Polar Code and ballast water management on agenda at IMO's Marine Environment Protection Committee \(10/9/14\)](#)

## **WEEDS**

### [The Western Aquatic Plant Management Society Newsletter \(Fall 2013\)](#)

Articles include: Washington Irrigation Districts Challenge Toxicity Assumptions and Lead Cascade® and Salmonid Study Articles include Efficient Algae Management in Today's Regulatory World.

### [Flowering rush picked out of Gem Lake, ID \(8/19/14\)](#)

IDAHO FALLS, Idaho - The Bonneville County Sheriff deputies dove into Gem Lake to pick a weeds because they have the proper diving equipment. Flowering rush is an invasive weed from Asia. It has long leaves up to 40 inches and pink flowers with three petals and sepals.....[with video]

### [Irrigation-clogging weed arrives in Oregon \(10/3/14\)](#)

Flowering rush, a Eurasian aquatic weed, was found for the first time in Oregon this summer and is already creating problems in other states by clogging irrigation canals....

### [Manitoba Invasive Species Council declares war on weeds \(9/23/14\)](#)

A small group met in the Pembina Valley Interpretive Centre August 20 to discuss how to engage the public in tracking a common enemy — weeds.....

## **FISH**

### [Frankenfish support resurfaces in DC \(9/25/14\)](#)

A group of 90 scientists and biotechnology execs from around the world are pushing President Obama to expedite approval of genetically modified salmon for US markets.....

### [Montana Study Finds Electrofishing Can Be Alternative To Toxicants In Removing Non-Native Species \(10/10/14\)](#)

A [new paper](#) looks at the feasibility of electrofishing to selectively remove invasive trout species from Montana streams as an alternative to using fish toxicants known as piscicides that effect all gill-breathing organisms.....

### [Silver carp eDNA detected in Lake Michigan tributary \(10/10/14\)](#)

The Michigan Department of Natural Resources (MDNR) and U.S. Fish and Wildlife Service (USFWS) are collaborating to assess a recent positive environmental DNA

(eDNA) result for silver carp—a species of Asian carp—within the lower Kalamazoo River, Allegan County, Michigan....

[US Plan to Export Asian Carp to China not that Simple \(9/23/14\)](#)

CHINA - In early September, US scientists came to China to explore ways to prevent the spread of Asian carp in their country and to explore the possibility of exporting the invaders back to China.....

[LAKE ELSINORE, CA : State looking for foreign fish \(10/9/14\)](#)

A team of state Fish and Wildlife personnel descended on Lake Elsinore this week searching for what one of its leaders termed “oddities.”.....

[Sea lice theory questioned in wake of 2014 BC sockeye salmon run \(9/29/14\)](#)

More than a decade ago, when scientists were trying to figure out why some pink salmon runs were on the verge of collapse on the B.C. coast, a biologist studying orca whales in the Broughton Archipelago stumbled on what she thought might be the culprit.....[scroll down in linked page to see this content]

[Lionfish: A Call to Action Against a Predator Fish With an Import Ban, an App and Even Rodeos \(9/25/14\)](#)

MIAMI — They eat anything that fits in their mouths. They reproduce copiously and adapt effortlessly. And they have become as ubiquitous and pesky as rats — only prettier and more conniving....

**OTHER**

[Tahoe’s Clam Battle \(10/14/14\)](#)

A project to suffocate Asian clams at Lake Tahoe’s treasured Emerald Bay may be coming to an end this month, when divers help remove about 5 acres of rubber matting being used to cut off the species’ oxygen supply....

[EPA: 5-year plan for Great Lakes focuses on toxins, invasive species, farm runoff and habitat \(9/24/14\)](#)

CHICAGO — The Obama administration unveiled an updated five-year plan for restoring the Great Lakes on Wednesday that outlines accelerated efforts to address toxic pollution, invasive species and farm runoff and restore plant and wildlife habitat....

[Invasive animal and plant species cost China US\\$32bn a year \(9/25/14\)](#)

More than half of the 100 most invasive foreign animal species identified by the International Union for Conservation of Nature have entered China and cause more than

200 billion yuan (US\$32 billion) in economic losses every year, reports our Chinese-language sister paper Want Daily.....

### [Is Great Britain heading for a Ponto–Caspian invasional meltdown? \(10/13/14\)](#)

Great Britain might be on the brink of invasional meltdown, and as a consequence, confronting the problem of Ponto–Caspian invasive species is a vital element for national biosecurity.....

### [Quantifying environmental DNA signals for aquatic invasive species across multiple detection platforms \(10/9/14\)](#)

The use of molecular surveillance techniques has become popular among aquatic researchers and managers due to the improved sensitivity and efficiency compared to traditional sampling methods. Rapid expansion in the use of environmental DNA (eDNA), paired with the advancement of molecular technologies, has resulted in new detection platforms and techniques. In this study we present a comparison of three eDNA surveillance platforms: traditional polymerase chain reaction (PCR), quantitative PCR (qPCR), and digital droplet PCR (ddPCR) in which water samples were collected over a 24 hour time period from mesocosm experiments containing a population gradient of invasive species densities. All platforms reliably detected the presence of DNA, even at low target organism densities within the first hour. The two quantitative platforms (qPCR and ddPCR) produced similar estimates of DNA concentrations. The analyses completed with ddPCR was faster from sample collection through analyses and cost approximately half the expenditure of qPCR. Although a new platform for eDNA surveillance of aquatic species, ddPCR was consistent with more commonly used qPCR and a cost effective means of estimating DNA concentrations. Use of ddPCR by researchers and managers should be considered in future eDNA surveillance applications. *[Note: Need to log in to view entire article]*

### [New USACE Invasive Species Website](#)

The U.S. Army Corps of Engineers Headquarters has launched a new Invasive Species Management website to highlight USACE-wide efforts to manage the introduction and spread of invasive species. Invasive Species management operates under one of the Army Corps of Engineers' main environmental missions: to conserve and manage the nation's natural resources....

### [I never got to try the nutria, darn it \(10/10/14\)](#)

My take on the [Eradication by Mastication event](#) is that a lot of people in Oregon, myself included, like to eat weird....

### [Evolutionary imbalance hypothesis: On invasive species, Darwin had it right all along, study shows \(10/2/14\)](#)

Dov Sax of Brown University and Jason Fridley of Syracuse University aren't proposing a novel idea to explain species invasiveness. In fact, Charles Darwin articulated it first. What's new about Sax and Fridley's "Evolutionary Imbalance Hypothesis" (EIH) is that they've tested it using quantifiable evidence and report in *Global Ecology and Biogeography* that the EIH works well....

#### [USFWS Invasive Species Quarterly \(Pacific Region, Summer 2014\)](#)

It's the end of summer and that means BACK-TO-SCHOOL. Rather than hang our heads at the declining heat, we at IQ celebrate with warm hearts the opportunity to combat invasives with knowledge. You can, too, by checking out our (late) summer issue with an invasives geography lesson, a message about not letting class pets loose, some great resources in the "Teacher's Lounge," and some science fair advice from kids who are ahead of curve when it comes to contributing to science. The bell's about to ring, so fire up that brain and enjoy another journey through IQ.

#### [Chinese mitten crab invades Scotland, poses threat to salmon, trout \(9/24/14\)](#)

The Chinese mitten crab, recorded in Scotland for the first time, poses a serious potential threat to salmon and trout in Glasgow's River Clyde, according to researchers from Royal Holloway, University of London, and the Natural History Museum.....

#### [American Intruder Lurks In Scottish Streams, Clawed And Hungry \(10/12/14\)](#)

...Allen Pleus, the naturalist back in the Pacific Northwest, commiserates with the Scottish anglers. "Unfortunately, we now have our own invasive-species crayfish in this area — mostly red swamp crayfish from the southern United States," he says.....

#### [Building knowledge on invasive alien species in the Pacific \(10/2/14\)](#)

Invasive alien species are recognized as the second largest drivers of biodiversity loss worldwide and island ecosystems appear to be more vulnerable to invasions. The Oceania region, home of six of the recognized 39 world biodiversity hotspots, has suffered significant loss of species and ecosystems as result of the spread of invasive alien species. The IUCN Species Survival Commission Invasive Species Specialist Group (IUCN SSC ISSG) and the Biodiversity and Protected Areas Management Programme (BIOPAMA) are working together to address this challenge by improving the access to data on invasive alien species in the Oceania-ACP island countries.....

#### [Bullfrog Invasion of the Yellowstone River \(10/2/14\)](#)

BOZEMAN, Mont. – The American bullfrog has expanded its invasion of the Yellowstone River floodplain in Montana, according to [a new study](#) released in "Aquatic Invasions." The study is the first of its kind to describe the rapid extent of bullfrog spread, as well as their preferred habitat along the Yellowstone River near Billings,

Montana. Scientists with the U.S. Geological Survey's Northern Rocky Mountain Science Center, Montana Natural Heritage Program, Bureau of Land Management, and Montana Fish Wildlife and Parks concluded that this invasive species is now thriving and rapidly spreading in the Yellowstone River....

[Foreign snails invading King County, WA \(9/23/14\)](#)

SEATTLE -- An invasive and non-native snail has spread from one creek to several in King County over the last five years. New Zealand mud snails were first found in lower Thornton Creek in 2009. County biologists said they are now infesting upper stretches of Thornton Creek along with Kelsey, McAleer and May creeks [with video].....

[Mercury Marine and Florida Sport Fishing TV educate boaters on invasive species \(10/10/14\)](#)

Mercury Marine, the world leader in commercial and recreational marine propulsion and technology, has partnered with Captain Mike Genoun of Florida Sport Fishing TV to educate boaters and divers on invasive species and the irreparable damage they can cause to the ecosystem....

## JOBS/RFPS

[Calif: Quagga and Zebra Mussel Infestation Prevention Grant Program \(8/20/14\)](#)

The California State Parks, Division of Boating and Waterways has made available the application and guidelines for the Quagga and Zebra Mussel Infestation Prevention Fee Grant Program. You can view these documents at the following link:

<http://www.dbw.parks.ca.gov/Funding/QZGrant.aspx>

Application Due: **October 20, 2014**

[2014 Algae Technology Research Grant](#)

**Fluid Imaging Technologies is pleased to announce the Algae Technology Research Grant.** Graduate students and senior undergraduates enrolled at a North American college or university who are studying advanced uses of algae for biofuels, plastics, nutraceuticals or other commercial applications are encouraged to apply for the use of a [FlowCAM](#)<sup>®</sup> to support their research. **Proposals are due December 31, 2014.** The award winner will be announced by January 15. All proposals will be reviewed by a panel of up to four independent scientists each having experience with use of the FlowCAM. The grant winner should plan on starting the project in February or March.

## TRAININGS/WEBINARS

**Hazard Analysis Critical Control Point (HACCP) Planning**

The US Fish & Wildlife Service will be teaching a course in Hazard Analysis Critical Control Point (HACCP) planning. HACCP is a tool used to reduce our risk of unintentionally spreading invasive species during the course of our natural resources work. The course will be **December 9 & 10th** at the Wyoming Game and Fish Department headquarters in Cheyenne, WY. Please contact Joanne Grady at [joanne\\_grady@fws.gov](mailto:joanne_grady@fws.gov) if you are interested in attending.

## OPINION

### [“Waters of the United States” by the Aquatic Ecosystem Restoration Foundation \(September 2014\)](#)

The sky is falling yet again. Shall we call up the Guard? Activate the congressional internet portals once more? Wait and see? Switch from FNC to MSNBC? Or what? AERF has opted to provide information to the aquatic plant management community and present possible responses from which you can choose. So this newsletter is dedicated to the hereafter referred to “proposed rule”. The Editor has tried to present arguments from both sides so you can make an informed decision whether to do anything or not.

In 1972, one of the banner years of the environmental movement, the Clean Air Act, the Federal Pesticide Control Act and the Clean Water Act all were enacted and assigned to the newly formed Environmental Protection Agency (EPA) for implementation. Every one of the Acts were necessary. The environment actually was in miserable shape; and since those early days each of the laws have pretty much achieved their initial objectives. More than forty years later the EPA continues to tinker with the respective requirements and jurisdictions. The EPA and the United States Army Corps of Engineers (Corps), who regulate wetlands under the Clean Water Act, have proposed a regulation purporting to better define “Waters of the United States” and to more accurately reflect what they see as their regulatory jurisdiction. It’s not likely that life as we know it will change dramatically. As with National Pollution Discharge Elimination System (NPDES), perhaps some change is inevitable and the aquatic plant management world will adapt and move on. On the other hand, this could be a very big deal with long term implications. Linked to administration mandated climate change-related policies, the Endangered Species Act and a resulting jurisdictional expansion of NPDES requirements, it’s difficult to see how the proposed definition would NOT have an effect on our aquatic regulatory world.....

## LEGISLATION/FEDERAL ACTIONS/BUDGET

### **House - bill introduced re incidental discharges (9/19/14)**

Representative Hunter (R-CA) introduced a bill ([H.R. 5609](#)) to provide for the establishment of nationally uniform and environmentally sound standards governing discharges incidental to the normal operation of a vessel.....

Related Stories: [Boat deck runoff may require permit at end of year \(9/30/14\)](#) and [Purse Seine Vessel Owners Association Joins the Seafood Harvesters of America, cite need for extension of existing moratorium on incidental discharge requirements \(10/6/14\)](#)

## MEETINGS

### OCTOBER

**The Alaska Chapter of the American Fisheries Society** will be meeting in Juneau, Oct. 20-24. An invasive species session is being planned. Contact Tammy Davis, ADFG, for further information @ [tammy.davis@alaska.gov](mailto:tammy.davis@alaska.gov)

[The International Invasive Sea Squirt Conference will be held at Woods Hole Oceanographic Institution Wed-Fri Oct 29-31, 2014.](#) **Conference Registration Deadline October 1, 2014.**

### NOVEMBER

The next **Aquatic Nuisance Species (ANS) Task Force** meeting will be Wednesday and Thursday, **November 5-6, 2014** with an All Panel Meeting the Afternoon of Tuesday, November 4. The meeting will be at the new location of the US Fish and Wildlife Service Headquarters Office in Falls Church, VA.

The meeting of the **Invasive Species Advisory Committee (ISAC)** will be held on Wednesday, **November 12, 2014 through Friday, November 14, 2014**, at the Holiday Inn Riverwalk, 217 N. St. Mary's Street, San Antonio, TX 78205. The theme of the meeting will be "Management of Invasive Species in Urban Areas." Further information can be found @ [http://www.invasivespecies.gov/global/ISAC/ISAC\\_index.html](http://www.invasivespecies.gov/global/ISAC/ISAC_index.html)

**Developing a Regional Defense Against Zebra and Quagga Mussels Workshop:** The Northwest is one of the last regions in North America that has not yet been infected by invasive freshwater mussels, but it will take a concentrated regional effort to prevent the environmental and economic impacts of an infestation. Please join us for this workshop to help coordinate efforts taking place throughout the Northwest, and identify the path forward for a bi-national, multi-jurisdictional approach to preventing invasive zebra and quagga mussels from infesting Northwest waters. This working session will identify next steps for developing a perimeter strategy for partnerships to prevent the spread of fresh water invasive mussels into the region.

**When:** November 21, 2014, 10:00 am - 2:00 pm; **Where:** Hyatt at Olive 8, 1635 8th Ave, Seattle, Washington; Cost: \$65. Includes breakfast and lunch. **For more**

**information:** Megan Levy, Pacific NorthWest Economic Region, 206-443-7723, [megan.levy@pnwer.org](mailto:megan.levy@pnwer.org); **Registration information:** <http://bit.ly/ispnwer>

## 2015

### JANUARY

The first-ever **Alberta Aquatic Invasive Species Summit** will be held in Calgary January 14-15, 2015. We'll capture the accomplishments to date, discuss emerging technologies, hear from neighbouring jurisdictions, receive program evaluation and recommendations from an expert panel, and more! Space is limited so an **RSVP REQUIRED by November 1, 2014**. Please RSVP as soon as possible to Tanya Rushcall: [Tanya.Rushcall@gov.ab.ca](mailto:Tanya.Rushcall@gov.ab.ca) or call (780) 644-4647.

### FEBRUARY

**National Invasive Species Awareness Week** – 02/22-28/2015. For further information go to <http://www.nisaw.org/>

### MARCH/APRIL

**2015 WAPMS Conference Information:** The 34th annual Western Aquatic Plant Management Society conference will be held at the [Crown Plaza Hotel](#) in Portland, OR on March 30 – April 1, 2015. Visit the [Conference Info](#) page for more information on registering, submitting titles and abstracts, and hotel reservations.

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### \*\*\*NOTE\*\*\*

The PSMFC has upgraded and moved our AIS website. The new website can be found at <http://www.westernais.org/>

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