AQUATIC INVASIVE SPECIES NEWS

5/18/16

DREISSENID MUSSELS

Idaho State Department of Agriculture Intercepts Boat with Live Mussels Onboard (5/17/16)

The Idaho State Department of Agriculture (ISDA) has intercepted a boat on U.S. Highway 93, north of Jackpot, Nev. carrying prohibited aquatic invasive species. The fouled watercraft was purchased recently in Nevada, after being moored in Lake Mead, a known quagga- and zebra-infested waterbody. While traveling through Idaho to its final destination in Auburn, Wash., the boat passed one of ISDA’s invasive species check stations without stopping for inspection, as required by Idaho law. A Twin Falls County Sheriff’s deputy stopped the boat hauler and escorted the vehicle back to ISDA’s Highway 93 check station for inspection. Field tests indicated the mussels in and on the boat were alive. The boat has been impounded by ISDA and will be released in the next 30 days after a thorough and complete decontamination.

Related Story: Officials: Boat had invasive species onboard (5/17/16)

AZ: Quagga-affected waters grow: AZGFD identifies Apache, Saguaro, Canyon lakes (5/9/16)

PHOENIX – Conclusive evidence of quagga mussels has recently been discovered at Canyon, Saguaro and Apache lakes, major recreational waters on the Tonto National Forest. Effective May 1, the Arizona Game and Fish Department will list these lakes as AIS-affected waters under AIS Directors Orders #2……
ASU Havasu student's research could help Arizona's quagga mussel fight (5/10/16)

Quagga mussels are popping up in lakes throughout Arizona, and local water experts are teaming up with Arizona State University-Lake Havasu students for research that could give them a better understanding of what’s going on under the surface.

Keeping microbes, zebra mussels away (5/9/16)

Only in dreams do zebra mussels have anything to do with implants for the brain — unless you’re Noah Snyder. He’s now marketing a chemical compound that can both help ward off the invasive species and make medical devices safer. The 28-year-old Mr. Snyder is president and CEO of Interphase Materials, a fledgling startup that has developed a chemical compound that can be added to coatings to repel microbes on medical and dental implants. Turns out it also works to stop metal corrosion, barnacles and zebra mussels, an invasive mollusk plaguing the Great Lakes.....

AB: Zebra and quagga mussels would cause $75 million in damage annually if they got in Alberta waterways (5/6/16)

Efforts to keep invasive mussels out of Alberta have been successful so far, but the threat is unending. “Inspectors at the Coutts inspection station near the Montana boarder have already intercepted one mussel-fouled boat since opening for the season in March, and it is expected that this will be only one of many such incidents during this summer’s boating season,” Alberta Environment and Parks said in a release earlier this month.....

United States Environmental Protection Agency Approves Funding To Assess Open Water Application Techniques with Zequanox (5/9/16)

Marrone Bio Innovations, Inc. (NASDAQ: MBII) (MBI) today announced that the United States Environmental Protection Agency (EPA) has approved funding, under the Great Lakes Restoration Initiative (GLRI), to assess new, non-enclosed open water application techniques with Zequanox®. Cameron Davis, senior advisor to the U.S. EPA administrator, stated that this application could “potentially expand invasive zebra and quagga mussel control possibilities throughout the Great Lakes Basin.”

IA: Zebra Mussels Found in Brushy Creek, Blue Pit (5/3/16)

The Iowa Department of Natural Resources (DNR) is watching Brushy Creek Lake after water samples collected last fall contained juvenile zebra mussels. The DNR collects water samples and deploys settlement samplers in lakes across the state each summer to monitor for the invasive zebra mussel and will closely monitor Brushy Creek Lake this spring and summer to determine if it has an established population of zebra mussels.
“Finding zebra mussels veligers indicates to us that zebra mussels have been introduced into Brushy Creek,” said Kim Bogenschutz, the DNR’s Aquatic Invasive Species Program coordinator. “But, it’s too early to tell if there is an established population in the lake.”

Saskatchewan on the lookout for invasive aquatic species (5/10/16)

REGINA – Saskatchewan has declared this week ‘aquatic invasive species awareness week’ in an effort to raise awareness and to keep invasive species out of Saskatchewan waters. The province is taking several steps to prevent invasive species from entering provincial waters including roadside watercraft inspections and check-stops with a focus on the Manitoba and U-S borders. Last year Zebra mussels were discovered in Manitoba. This includes zebra mussel larva in Cedar Lake, which is part of the Saskatchewan River system.

Invasive Mussel Framework for Western Canada. (April, 2016)

This Invasive Mussel Prevention Framework is the result of collaborative effort between a diverse group of contributors from agencies, organizations, businesses and other key stakeholders across Western Canada. Participation in this process does not imply endorsement of this plan or any commitment on the part of the partner organizations. The Invasive Species Council of BC (ISCBC) and Pacific NorthWest Economic Region (PNWER) look forward to working together in support of the Framework objectives as part of a coordinated, collaborative approach to invasive mussel prevention throughout Western Canada. For further information please contact Gail Wallin, ISCBC Executive Director, at gwallin@bcinvasives.ca.

Variability in phenotypic tolerance to low oxygen in invasive populations of quagga and zebra mussels (4/7/16)

Novel biotic or abiotic conditions can cause invasive species to evolve rapidly in their newly invaded habitats and are important factors when predicting species invasions. Zebra mussels (*Dreissena polymorpha*) have a relatively long invasion history in Western Europe, whereas quagga mussels (*Dreissena rostriformis bugensis*) began spreading about a decade ago. In a previous invasion to North America, quagga mussels repeatedly colonized stratified lakes at greater depth than zebra mussels. It would be important to know if the same invasion pattern is expected to repeat in Western Europe, as the quagga are expected to reach deep stratified lakes in the near future. This might require quagga mussels to be more tolerant of the low oxygen conditions at depth than zebra mussels. Therefore, using a fully factorial design, we tested survival of different zebra and quagga
mussel populations from Western Europe at four oxygen levels (6%, 33%, 66% and 90%) and two temperature regimes (11°C and 18°C). Surprisingly, survival differences among oxygen and temperature treatments depended more on population origin than on species identity. This finding suggests that populations have undergone rapid and convergent adaptation to local conditions after invasion, in particular to low oxygen. We also found that population-by-environment interactions were more variable among quagga than zebra mussel populations. Our results suggest that rapid evolutionary adaptation to low oxygen conditions needs to be considered when predicting the further spread of zebra and quagga mussels.

BOAT INSPECTION/DECON NEWS

OR: Protecting Our Waterways from Invaders 2015 Annual Report is Out (5/6/16)

It’s been six years since the Oregon Legislature enacted the Aquatic Invasive Species Prevention Program, aimed at protecting Oregon’s waterways from the economic and environmental devastation experienced in the Midwest from invasive quagga and zebra mussels. Since the program’s inception, the Oregon State Marine Board (OSMB) and Oregon Department of Fish and Wildlife (ODFW) have issued an annual report highlighting the year’s activities to include mandatory check stations, education and outreach, and program finances…..

NE: Mussels among state’s invasive species (5/12/16)

Starting this year, all resident and non-resident boaters will be required to pay a fee to fund programs aimed at combating aquatic invasive species including plants and mussels. Boaters who register their motorized watercraft in Nebraska will see a $5 fee added to their three-year boater registration. Boaters who register their watercraft in any other state will be required to purchase a $15 invasive species tag each year that they boat in Nebraska waters. The stamp is available online at http://outdoornebraska.gov/ or temporary stamps may be purchased at some state parks and recreation areas…..

SD: Don’t Move a Mussel! Authorities Battle Spread of Zebra Mussels (5/8/16)

Boaters, listen up: Mike Smith doesn’t want you to move a mussel. Smith serves as the Aquatic Invasive Species (AIS) coordinator for South Dakota Game, Fish and Parks. His agency is working with Nebraska and federal officials to crack down on violators of boating regulations. The effort is intended to stop the spread of zebra mussels, which are tiny mollusks found in densities of 700,000 mussels per square meter…..

Related Story: SD: New aquatic invasive species laws may be confusing but will pay off in time (5/5/16)
CO: Green Mountain Reservoir prone to invasive species invasion (5/12/16)

……“As we’ve declined in our funding, we’ve had to prioritize what we do at the forest level,” said Bill Jackson, Dillon district ranger. “So what do we fund — seasonal employees, people, other programs or (invasive species)? Those are tough decisions to make, and some people think (infestation) is inevitable or don’t think that it’s money well spent.”……

UMN launches research with Tonka Bay Marina, Brunswick Freshwater Boat Group and DNR to help reduce zebra mussel spread (5/11/16)

The Minnesota Aquatic Invasive Species Research Center (MAISRC) announced today a partnership with Tonka Bay Marina, the Brunswick Freshwater Boat Group and the Minnesota Department of Natural Resources to launch new research aimed at reducing the spread of invasive zebra mussels by recreational boaters. This is the first phase of a program to identify the primary ways people spread zebra mussels. Specifically, this project will examine spread of aquatic invasive species (AIS) from “residual water”— water left in a boat after its operator has attempted to fully drain it….

SK: Aquatic Invasive Species Awareness Week Aims to Protect Saskatchewan Waters (5/10/16)

To help keep the province’s waterbodies free of zebra and quagga mussels, the Government of Saskatchewan is proclaiming May 8 to 14 Aquatic Invasive Species Awareness Week to emphasize the need for diligence when it comes to this critical issue. “While monitoring done to date has not found zebra and quagga mussels in the province, we continue to work to increase awareness on this issue,” Environment Minister Herb Cox said. “Our government’s focus in 2016 and beyond will include increased watercraft inspections, decontaminating high-risk watercraft found entering the province and additional education and awareness efforts to help protect our fish populations and aquatic habitats.”….

MN: Mandatory training required for aquatic invasive species violators (5/11/16)

Starting this boating season, anyone found guilty of violating Minnesota’s aquatic invasive species laws will not only have to pay the required fines but will also have to complete mandatory training. The short “Clean In Clean Out” training must be completed before people found guilty of violating Minnesota’s aquatic invasive species laws can legally operate their watercraft anywhere in the state….The “Clean In Clean Out” training is available on the training page……

BC: Vehicle blows past inspectors at mandatory invasive mussels checkpoint (5/9/16)

A vehicle tugging a boat from Ontario flew right by inspectors at a mandatory inspection site near Elko, B.C. The boat inspection sites are set-up at various points along B.C.’s borders to check for invasive mussels. "Despite the waving [by inspectors], he went by.
So the owner drove past our station intentionally," said Matthias Herborg, aquatic invasive species specialist with the Ministry of Environment. Inspectors contacted conservation officers, who were able to track down the vehicle half an hour down the road and bring it back. The driver was given a ticket for disobeying the law and the boat was checked for invasive species. It was decontaminated after inspectors found mussels.

MARINE

A rolling boil over a potential EU lobster ban (5/12/16)

As the black-tied dignitaries strap on their White House-monogrammed bibs, they could also dig into what should be a key issue for the US-Nordic Leaders Summit: Sweden’s effort to ban the importation of live lobsters to the 28 European Union nations under new invasive species regulations. An EU panel will consider the issue next month and the dispute could eventually go to the World Trade Organization….

Red crab invasion: Beaches at Newport Beach, Laguna Beach covered by the tiny crustaceans (5/13/16)

Newport Beach surfer Amanda Taylor went down to check out the waves Friday morning and was greeted by red crabs blanketing the sand. “They’re the trippiest things you’ve ever seen,” she said. “They were all alive.” Lifeguards estimated there were hundreds of thousands of them washed up on shore from the Newport Beach pier south to the Balboa Pier. In Laguna Beach, areas such as Shaw’s Cove were covered in the tiny critters, and some were washed up at Main Beach.

BALLAST WATER/BIOFOULING

Practicability Review: Standards for Living Organisms in Ships' Ballast Water Discharged in United States Waters (5/11/16)

The Coast Guard announces the availability of its Practicability Review conducted for the purpose of determining whether technology to comply with a performance standard more stringent than that required by the Coast Guard's current regulations on Ballast Water Discharges can be practically implemented and whether testing protocols that can assure accurate measurement of compliance with a more stringent performance standard can be practically implemented. Coast Guard ballast water regulations require the Coast Guard to undertake and publish the results of its Practicability Review. In the Practicability Review, we conclude that, at this time, technology to achieve a significant improvement in ballast water treatment efficacy onboard vessels cannot be practically implemented. The reason for this determination is that, as of the date of completion of the Practicability Review, there are no data demonstrating that ballast water management systems can meet
a discharge standard more stringent than the existing performance standards. In light of this determination, the Coast Guard has not evaluated whether testing protocols exist which can accurately measure efficacy of treatment against a performance standard more stringent than the existing performance standards.

Related Story: Stricter Ballast Water Discharge Standards Not Practical (5/13/16)

Ballast water treatment, uncertainty and what to learn from it all (5/16/16)

From the desk of Rear Adm. Paul Thomas, assistant commandant for prevention policy
In early December, I published a six-part series providing an update and information about the Coast Guard’s ballast water regulations and implementation. Over this six-part series, I provided basic details and clarified confusion about the U.S. ballast water regulations published in 2012, compared U.S. regulations and the International Maritime Organization (IMO) ballast water Convention, summarized the Coast Guard type-approval process, discussed type-approval challenges, and provided an overview of ballast water treatment systems technologies. During recent discussions at the IMO (Marine Environment Protection Committee, Session 69), the challenges associated with testing Ballast Water Treatment Systems were discussed at great length. Based on these discussions and as work to revise the G8 Guidelines for Testing Ballast Water Treatment Systems continues, I wanted to highlight the complexity of this issue, discuss why a robust type-approval process is crucial, and stress the need for industry innovation to help drive environmental change…..

Industry viewpoint: Organism regrowth could see compliant owners fall foul of ballast water regulations (5/3/16)

Ballast water discharged from ships is known to be one of the primary routes for the transfer of invasive species. With the imminent ratification of the IMO Ballast Water Management Convention shipowners are being forced to invest in ballast water treatment systems (BWTS), so protection from this threat to the marine environment is finally at hand ... or is it? Before we celebrate the end to the transfer of invasive species we need to recognise that some BWTS are unable to reliably treat ballast water so that they meet either the IMO or USCG discharge standards under the full range of real operating conditions. As Lars Robert Pedersen, BIMCO’s deputy secretary general, said during IMO MEPC 69, “The shipping industry needs reliable ballast water treatment systems that are fit for global use. Presently, IMO-approved systems may not always live up to the required standards under real operating conditions on board ships.”

FISH
Mississippi River carp barrier plan snagged by U internal dispute (5/16/16)

Plans for an invasive carp barrier on the Mississippi River near Winona, Minn., are caught in a dispute between a key scientist and the University of Minnesota. As a result, the future of the project is uncertain. Peter Sorensen said he planned to seek funding for the $8 million invasive carp barrier from the Legislative-Citizen Commission on Minnesota Resources but that university administrators declined to submit the proposal. Sorensen, a researcher who was demoted previously by the U, has been testing sound and air bubble barriers for several years….

8,089 lionfish removed in Pensacola during second Lionfish Day (5/17/16)

Successful is too small of a word to describe the second annual Lionfish Removal and Awareness Day Festival on May 14-15. In Pensacola alone, 8,089 lionfish were removed in only two days at the Gulf Coast Lionfish Coalition Tournament. More than 7,000 people (more than double last year’s numbers) attended the Florida Fish and Wildlife Conservation Commission (FWC) festival, where visitors got to taste lionfish, see filet demonstrations, check out art and conservation booths and much more. And if that wasn’t enough, Charles Meyling of Montgomery broke the state record for longest lionfish caught in Gulf waters when he brought in a 445 millimeter lionfish (previous record was 438 millimeters)….

WA: Northern Pike Suppression Plan Gets Green Light from Science Panel (5/2/16)

A plan to remove the invasive northern pike from Lake Roosevelt, the reservoir behind Grand Coulee Dam, recently passed scientific review and moved a step closer to possible implementation. The Independent Scientific Advisory Review Panel submitted its evaluation to the Northwest Power and Conservation Council March 28….

Flower Garden Banks National Marine Sanctuary : Accepting Applications for 2nd Lionfish Invitational

In August/September 2015, trained volunteers and research partners conducted fish surveys and removed 317 lionfish from FGBNMS as part of the first ever Lionfish Invitational. Now, we’re planning for Invitational #2! Complete eradication of invasive lionfish is not an option with current technology, given the species’ broad depth distribution (surface to 1000 feet) and rapidly growing populations. However, control at the local scale has been proven to be successful. Building on these successes, FGBNMS will be working with a number of partners to use trained divers to help conduct research and remove invasive lionfish within the sanctuary. Collection permits will be issued for a four-day lionfish research cruise on board the recreational dive charter M/V FLING for August 28-September 1, 2016. Cost for the trip will be $750 per person. For more details about this Diving for Research trip or to apply, download the 2016 Lionfish Invitational Application.

Deadline for applications is May 31, 2016.
Modeling suitable habitat of invasive red lionfish *Pterois volitans* in North and South America’s coastal waters (5/6/16)

............... Our model results also suggest that red lionfish could continue to invade southern latitudes in the western Atlantic Ocean and may establish localized populations in the **eastern Pacific Ocean**. We reiterate the importance in the choice of the training data source (native, non-native, or native/non-native) used to develop correlative species distribution models for invasive species.

IN: Eagle Marsh officially announces completion of Asian carp deterrent (5/12/16)

**Eagle Marsh Nature Preserve** in Fort Wayne officially announced Tuesday the completion of a berm to block the pathway of invasive species to and from the Great Lakes….

ERDC scientists seek ways to control invasive carp (5/7/16)

…..Hoover is working on another process called hydraulic containment — regulating the force of the water flow, or current, to contain the carp or force them away from certain areas. This technique is being considered for the Upper Mississippi River, the Ohio River and other waterways. “With carp, we’re trying to establish what velocities they can’t swim against, and use those as a hydraulic barrier; a way of containing them in certain areas,” he said, adding one reason the carp haven’t made the headway in the Upper Mississippi as they have in the rest of the river is the system of 27 locks and dams along the Upper Mississippi…..

Invasion of Asian carp in south Louisiana waterways, and how to control it, continues to baffle officials (5/8/16)

MORGAN CITY — Stories are circulating in the camps that dot the waterways of south Louisiana about large fish launching their bodies out of the water and into the path of boats carrying fishermen and hunters. The fishermen are talking about the Asian carp, an invasive fish that has taken over some waterways in Northern states and has been moving South. “I spent my life out on the water, and it’s changing. It’s getting more dangerous, and it’s all because of one fish,” said Jerry Rivere, 61, on a recent trip to the Atchafalaya River basin…..

Walleye Foraging Ecology in an Interconnected Chain of Lakes Influenced by Nonnative Species (3/3/16)

The Laurentian Great Lakes are a source of nonnative species for smaller inland lakes throughout the region; however, the foraging ecology of predators in smaller systems
invaded by nonnative species has not been well studied. We used diet and stable isotope analyses to describe the contributions of native and nonnative forage species to the diets of Walleyes *Sander vitreus* within an inland lake chain invaded by multiple nonnative species. Our hypothesis was that the Walleyes’ diet would be associated with the relative amount of prey available in littoral or offshore–pelagic habitats and would ultimately be linked to the dominant habitat type. We found that Walleyes in the study lakes exhibited flexibility in their dietary inclusion of nonnative prey species. Similar to predators in the Laurentian Great Lakes, Walleyes in smaller inland lakes integrated littoral nonnative species into their diets. However, Walleyes unexpectedly showed limited usage of accessible nonnative pelagic forage. We suggest that predator responses to species introductions are likely context dependent and warrant further investigation in multiple systems and with multiple predators to determine the full extent of nonnative species' integration into the food web and their influence on native populations. [Full Article = $$$$$]

**OTHER**

**UK: Amazon and eBay hosted ads for banned invasive species (5/6/16)**

Amazon and eBay appear to have openly broken the law by hosting listings to ship banned invasive species to the UK, the Guardian can reveal. Both eBay and Amazon have previously been criticised for hosting ivory traders, but the UN Convention on Biological Diversity (CBD) rates invasive species as a more significant threat to biodiversity than poaching for animal parts. In February, the CBD said there was an “urgent need” to control the vast, unregulated network of online traders who buy and sell these pests across the globe. In the UK, the government has banned seven species of aquatic weed from sale or advertisement in England because they have destructively colonised rivers and waterways. But at least three were openly available for sale on eBay and one on Amazon for delivery to any Briton with a credit card…..

**MN: New EPA Funding For Sea Grant Invasive Species Campaign**

DULUTH, MN (KDAL) - New EPA funding has been announced for a program that is helping to prevent the spread of aquatic invasive species in the Great Lakes and inland waters of Minnesota and Wisconsin. The Aquatic Invasive Species Coordinator with Sea Grant Minnesota, Doug Jensen, tells KDAL about their "Habitattitude" campaign designed to provide information about cleaning boats and fishing equipment and finding new homes for unwanted pet fish or aquarium plants…..

**Excuse me, waiter, there’s an invasive species in my soup (5/11/16)**

After a full day looking at dinosaur bones, taxidermy birds and hieroglyphs at the Yale Peabody Museum of Natural History, I walked through the streets of New Haven in the rain to into a warm, rustic little Japanese restaurant feeling ravenous, excited and slightly
nervous. While my official excuse to travel to New Haven, Connecticut, last month was to visit friends, I was really just looking forward to dinner. Dinner at Miya’s Sushi, that is. That’s the best place to order a plate, platter or bowl full of invasive species, a colleague had told me. I couldn’t resist. Chowing down on alien plants, animals and insects that displace native species we’re trying to conserve? Why not? I reasoned the worst possible result of this adventure could be a bad stomachache. Ethically, as an omnivore, I was ok with this…..

BC: Aquatic Invaders: An Activity Package for Teachers and Youth Leaders (2016)

As part of Invasive Species Action Month, the Invasive Species Council of British Columbia (ISCBC) is pleased to announce a new FREE educator’s resource that focuses on aquatic invasive species, their impacts, and actions to take to stop their spread. This resource package contains a range of activities suitable for grades K - 12 as well as informal educators, that includes active games, research projects, and great hands-on demonstrations. Let us know what you think — all feedback welcome!

WEEDS

A primer on potential impacts, management priorities, and future directions for Elodea spp. in high latitude systems: learning from the Alaskan experience (4/26/16)

Invasive species introductions in Arctic and Subarctic ecosystems are growing as climate change manifests and human activity increases in high latitudes. The aquatic plants of the genus Elodea are potential invaders to Arctic and Subarctic ecosystems circumpolar and at least one species is already established in Alaska, USA. To illustrate the problems of preventing, eradicating, containing, and mitigating aquatic, invasive plants in Arctic and Subarctic ecosystems, we review the invasion dynamics of Elodea and provide recommendations for research and management efforts in Alaska. Foremost, we conclude the remoteness of Arctic and Subarctic systems such as Alaska is no longer a protective attribute against invasions, as transportation pathways now reach throughout these regions. Rather, high costs of operating in remote Arctic and Subarctic systems hinders detection of infestations and limits eradication or mitigation, emphasizing management priorities of prevention and containment of aquatic plant invaders in Alaska and other Arctic and Subarctic systems. [Full Article = $$$’s]

Invasive species target Texas Hill Country (5/5/16)

FREDERICKSBURG, Texas - The Texas Parks & Wildlife is working to remove an invasive species along Texas Hill Country rivers and streams. Arundo can grow to be 30 feet or taller. If it is untreated or removed improperly, it can easily spread. “Anytime you grind it up and you till it into the soil, Arundo says, "Thank you. I will create many
"colonies," Luci Cook-Hildreth, with the Texas Parks & Wildlife, said. The Healthy Creeks Initiative is one aspect of a broader statewide effort made possible by a record $6.6 million to control invasive aquatic species, approved by the Texas Legislature. "Arundo is a big drinker. It really can suck up a lot of water," Cook-Hildreth said.

**TRAININGS/WEBINARS**

**Webinar: Dreissenid Mussel Research Priorities: Understanding Biology and Environmental Tolerances for Effective Management**

**WHEN:** Thu, May 26, 2016 11:00 AM - 12:00 PM PDT

**PRESENTERS:** Steve Waste, USGS Western Fisheries Research Center; Mark Sytsma, Portland State University; and Lisa DeBruyckere, Creative Resource Strategies, LCC

Under the Shared Landscapes Outcomes initiative of the Great Northern Landscape Conservation Cooperative (GNLCC), a pilot project was implemented to address aquatic integrity and stressors in the Columbia River Basin. Members of the GNLCC Columbia Basin Partner Forum (CBPF) organized and convened this workshop in response to shared concerns from the CBPF about aquatic invasive species in the Columbia Basin, and a direct request from Pacific Northwest Economic Region (PNWER) for a prospectus on priority research needs for Quagga/Zebra mussels.

This webinar reports the results of the workshop, supported by the GNLCC, and held at Portland State University November 4-5, 2015. A total of 28 North American experts in mussel, biology, ecology, and management convened to achieve consensus on the highest priority research priorities for dreissenid prevention, detection, monitoring, management, and control.

**PowerPoint Presentations from the 19th International Conference on Aquatic Invasive Species Now Available**

The PDF files of the PowerPoint presentations presented during the conference are now available on the ICAIS website. To view the presentations go to [this link](#).

**JOBS/GRANTS**

**Portland State University, Graduate Student Opportunity: Management of Urban Lakes**

The Center for Lakes and Reservoirs at Portland State University (PSU) and the Lake Oswego Corporation (LOC) announce the availability of a graduate student position focused on management of urban lakes. The graduate student will be enrolled in a
masters degree program in the Environmental Science and Management Department or a doctoral degree program in the School of the Environment at PSU.

For additional information about the opportunity please contact Mark Sytsma at PSU (mark.sytsma@pdx.edu) or Mark Rosenkranz at LOC (mark.rosenkranz@lakecorp.com). For further information on the Center for Lakes and Reservoirs please visit http://www.pdx.edu/center-for-lakes-and-reservoirs/

Zequanox Product Manager

The Zequanox Product Manager will play a critical role in ensuring customer success and satisfaction and to accelerate the adoption of the Zequanox product. The chosen candidate will manage technical support and oversee activities for our Zequanox customers and collaborators. This position will be responsible for managing and leading all service and technical aspects for customer sites, as well as coordinating between MBI departments and collaborators for any research and development of Zequanox.

Location: MBI Headquarters, Davis, CA
Close Date: May 31, 2016

Assistant Director for Interdepartmental Coordination Office of the Secretary of the Interior

This position is located within the Department of the Interior (DOI), Office of the Secretary (OS), National Invasive Species Council (NISC). The incumbent serves as the National Invasive Species Council Secretariat’s Assistant Director for Interdepartmental Coordination. The NISC Secretariat is a high-level body that serves the Principals of 13 Federal Departments/Agencies. It also interfaces with senior staff representing Congress, CEQ, OSTP, the White House, OMB, GSA and other Federal advisory bodies on behalf of NISC. Following priorities, guidelines, and strategic plans established by the Executive Director, the incumbent ensures effective day-to-day coordination across the NISC member Departments/Agencies, as well as other Federal bodies on a project-by-project basis. This is a permanent, full-time, career/career conditional appointment.

Closes Monday 5/23/2016


The RFP for QZAP funding (#F16AS00155) administered by FWS R2 was posted on Grants.gov on March 31, 2016. If you have any questions about this announcement or application details, please contact David Britton, R2 AIS Coordinator, at david_britton@fws.gov or 505-366-9565.

Proposals will be accepted through June 3, 2016
FEDERAL/STATE/PROVINCIAL
LEGISLATION, RULES, ACTIONS

STATE

NH: Lawmakers consider fining people who transport invasive species between New Hampshire lakes (5/2/16)

…The legislation would fine people who negligently transport invasive species, including milfoil, among New Hampshire water bodies. The first offense would result in a $50 fine, the second a $100 fine and the third a $250 fine.

VA: HB 1115 Zebra mussels; education program.

On March 29, 2016, the Virginia Legislature enacted H.B. 1115 requiring the Director of the Department of Game and Inland Fisheries to establish a program of education for boaters and other members of the public in methods of preventing zebra mussels or other nonindigenous aquatic nuisance species from infesting Virginia waters. The program is to include cleaning and draining requirements, as well as designating drying times.

FEDERAL


……Today’s EPA grants were divided into four categories: invasive species prevention, invasive species control, urban watershed management implementation and agricultural watershed management implementation.


On 3/17/16 Rep. Curbelo (FL-26) introduced bipartisan legislation, the “Finding Innovative Lionfish Elimination Technologies (FILET) Act of 2016,” H.R. 4787. "For decades, coastal communities along the Atlantic Ocean and Gulf of Mexico have faced a growing ecological and economic threat from Lionfish, an invasive species of marine animal. Lionfish have no natural predators in our region and a single female lionfish can lay up to 2 million eggs per year. This bill has not moved out of committee
Note: Another lionfish bill introduced 7/23/15 – H.R. 3202 - L.E.A.P. Act of 2015 would amend section 42 of title 18, United States Code, popularly known as the Lacey Act, to add certain species of lionfish to the list of injurious species that are prohibited from being imported or shipped. This bill has not moved out of committee.

Senate passes bill to reauthorize EPA estuary program

The Senate passed legislation by unanimous consent on 5/16 that would reauthorize the National Estuary Program. The bipartisan bill, S. 1523, would reauthorize the U.S. EPA program at $27 million a year from fiscal 2017 through fiscal 2021. The NEP has funding for “invasive exotic species that may threaten wastewater systems and cause other damage”. The House passed an amended version (H.R. 944) of the Senate bill by voice vote April 26. The legislation will now be sent to President Obama.

House Appropriations Committee Approves Fiscal Year 2017 Energy and Water Appropriations Bill (4/12/16)

On 4/19/16 the House Appropriations Committee approved the fiscal year 2017 Energy and Water Development, and Related Agencies Appropriations bill. The legislation provides annual funding for national defense nuclear weapons activities, the Army Corps of Engineers, various programs under the Department of Energy (DOE), and other related agencies.

For the draft bill report, go HERE, and see Page 32: Aquatic Plant Control Program.— Funding is provided for watercraft inspection stations and related monitoring, as authorized by section 1039 of WRRDA 2014.

IN THE SENATE: FY2017 Energy & Water Development Appropriations Bill Ready for Floor Consideration

Bill and Report language can be found HERE. Report language included the following (page 19)

Aquatic Plant Control Program
.—The Committee recommendation includes $9,000,000 for the Aquatic Plant Control Program. Within available funds, $4,000,000 is recommended for nationwide research and development to address invasive aquatic plants; $4,000,000 is for watercraft inspection stations, as authorized by section 1039(d) of WRRDA; and $1,000,000 is for monitoring and contingency planning associated with watercraft inspection stations as authorized by section 1039(e) of WRRDA. The Corps of Engineers is encouraged to support cost-shared aquatic plant management programs.
NOW WHAT: On 5/12/16 The Senate passed the FY2017 Energy and Water Development Appropriations Bill. The House will likely take up its fiscal 2017 energy and water spending bill shortly after May 15.

WRDA voted out of Senate panel (4/28/16)

WASHINGTON, DC – U.S. Sens. Jim Inhofe (R-Okla.), chairman of the U.S. Senate Environment and Public Works (EPW) Committee, and Barbara Boxer (D-CA), ranking member of the Senate EPW Committee, praised broad bipartisan support for the Water Resources Development Act (WRDA) of 2016 [S. 2848] at the Senate EPW markup on 4/28/16. The legislation was reported out of the committee by a vote of 19 to 1.

Note: See page 72 of the bill. This “technical fix” language will allow the use of federal funds (USACE) to support watercraft inspection stations outside of the Columbia River Basin drainage:

(b) Watercraft Inspection Stations, Columbia River Basin. — Section 104(d) of the River and Harbor Act of 1958 (33 U.S.C. 610(d)) is amended—

(1) in paragraph (1), by striking “stations in the Columbia River Basin to be located in the States of Idaho, Montana, Oregon, and Washington” and inserting “stations to protect the Columbia River Basin”; and

NOW WHAT: SENATE: According to E&E Daily, Senate Environment and Public Works Chairman Jim Inhofe (R-Okla.) said yesterday [5/10/16] that he expects Congress to pass the 2016 Water Resources Development Act by mid-July. The massive water resources and infrastructure bill is a priority for Inhofe and EPW Committee ranking member Barbara Boxer (D-Calif.), both of whom will step down from their committee leadership positions at the end of the year. "My timing for WRDA is going to be for the work period between June and July 15, and that's when I'd like to see it completed. [Source: Reprinted from E&E Daily with permission from Environment & Energy Publishing. www.eenews.net; 202/628-6500]. HOUSE: Expect to see a WRDA bill soon, as early as the week of May 23rd.

S.373 - Vessel Incidental Discharge Act (VIDA)

S.373, the Vessel Incidental Discharge Act, was introduced by Sen. Rubio, Marco (R-FL) on 02/04/2015. Similar legislation was also introduced into the House H.R.980 by Rep. Duncan Hunter (R-CA).

Most recently, language mirroring VIDA was amended to H.R.4909 - National Defense Authorization Act for Fiscal Year 2017. Report language can be found HERE
Many in the shipping industry including groups like the American Waterway Operators supports VIDA. However, the States of California, Oregon and Washington, the Great Lakes state legislators and conservation groups have raised concerns about the VIDA legislation in this and the last congress. Most recently (5/9/16) Attorney Generals from Washington, Oregon, New York, Michigan, and Maine voiced their “strong opposition” to VIDA. Additionally, President Obama on 5/16 came out against the VIDA language in HR 4909 saying:

**Ballast Water:** The Administration objects to Title XXXVI, which undermines the ability to fight the spread of invasive species in our Nation's waters because it, in part: would lack critical civil and criminal enforcement mechanisms present in the existing statutory and regulatory regime, the absence of which would irreparably hinder the successful prosecution of unlawful discharges; would effectively discard the existing body of domestic environmental laws as those laws apply to vessel discharges; would jettison well-established statutory and regulatory regimes that implement U.S. international legal obligations; and would fail to preserve expressly the authorities of the Secretary of Commerce and the Secretary of the Interior to exercise administrative control over waters under each Secretary's jurisdiction.

**NOW WHAT:** A vote is expected on HR 4909 any moment. It is expected to pass with the VIDA language. The companion Senate bill S.2814 does not have the VIDA language (so far)...stay tuned. For further information on concerns about VIDA contact Allen Pleus of WDFW @ Allen.Pleus@dfw.wa.gov.

**MEETINGS**

**JULY**

**15th Ballast Water Management Summit Date:** 13th July 2016 - 14th July 2016 Location: Singapore

**PNWER 26th Annual Summit – July 17-21** Calgary, AB

**AUGUST**

**Oregon Invasive Species Cook-off 2016 Saturday August 27, 2016,** Corvallis, OR

**OCTOBER**
The Northern Rockies Invasive Plants Council is holding a conference October 17-20, 2016, in Boise, ID.

Western Regional Panel on Aquatic Nuisance Species: October 19-21, 2016 - Jackson, WY

Upper Midwest Invasive Species Conference: October 17-19 2016 La Crosse, Wisconsin. Abstracts are now being accepted through the UMISC website. Only abstracts submitted through the website will be considered. Deadline: Monday, April 4, 2016

**NOVEMBER**

36th Annual Symposium of the North American Lake Management Society November 1 - 4, 2016; Banff Springs Hotel, Banff, Canada. **The Call for Abstracts is Now Open!** Submission Deadline: May 6, 2016. [Click here for details.](#)

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