



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

*9/3/14*

### **DREISSENID MUSSELS**

#### [Quagga Mussel DNA found at South Fork State Recreation Area, NV \(8/25/14\)](#)

The Nevada Department of Wildlife (NDOW) announced today that the reservoir at South Fork State Recreation Area has tested positive for quagga mussel DNA. No adult quagga mussels or veligers (larval stage quagga) were found in that waterway. The reservoir is not considered infested at this time; however NDOW and the Nevada Division of State Parks (NDSP) are implementing immediate strategies to limit any potential of quagga mussels spreading from South Fork to other locations.....

More information on the South Fork State Recreation Area can be found [HERE](#) and a Google map [HERE](#)

#### [Lake Winnipeg: Enhanced Monitoring Leads to More Findings, Province to Ramp up Containment Efforts, Train Canine Unit \(8/29/14\)](#)

Manitoba Conservation and Water Stewardship is enhancing water sampling and monitoring throughout many areas of Lake Winnipeg for zebra mussels. Decontamination stations have been set up at Gimli, Winnipeg Beach and Selkirk Park, and portable decontamination units will move between other high-traffic harbours. As reported on August 11, monitoring in the treated harbours and other areas found a small number of larval zebra mussels (veligers). More than 60 previous samples had not revealed any zebra mussel activity in Lake Winnipeg. Since then, increased sampling has determined that zebra mussels are present in more areas.

#### **Other Lake Winnipeg stories**

[Dogged fight against zebra mussels will continue \(8/29/14\)](#)

[Manitoba: Province Advises Zebra Mussel Larvae Found In Lake Winnipeg's South Basin \(8/11/14\)](#)

[Fisherman mad, disappointed zebra mussels found in Lake Winnipeg \(8/11/14\)](#)

[Why are zebra mussels in Lake Winnipeg such a calamity when they've been in the Great Lakes for decades? \(8/12/14\)](#)

[Inspectors Prevent Two Zebra Mussel Contaminated Boats from Entering Alberta \(8/29/14\)](#)

Medicine Hat, Alberta – In a classic example of why every boater must take the proactive step of cleaning their boats, authorities stopped two boats from crossing over into the province after they were found to contain the highly invasive species called the Zebra mussel....

#### [Zebra mussels decline on Lake Mille Lacs, MN \(8/27/14\)](#)

After growing exponentially for several years, the zebra mussel population on Lake Mille Lacs has fallen for the second consecutive year — indicating the population might be leveling off .....

#### [Zebra mussels confirmed in Hennepin County's Christmas Lake, MN, Eradication under consideration? \(8/20/14\)](#)

.....MCWD and DNR staff examined the lake further and only found zebra mussels in the area around the public water access. Because this infestation appears to have been detected early, MCWD is working with the DNR and the city of Shorewood on a rapid response plan which may help to prevent a lake-wide infestation.....

#### **Related:** [Molloy discusses biological control of zebra mussels \(8/29/14\)](#)

The biological agent was approved for lake application this summer and is being tried in Christmas Lake.....

#### [Saskatchewan: Province warns boaters about invasive zebra, quagga mussels \(8/15/14\)](#)

The province is warning residents to inspect their boats for mussels before entering Saskatchewan lakes and waterways. Zebra mussels have been discovered in Lake Winnipeg in Manitoba and the province has been having a hard time dealing with them.

#### [Lake Havasu marine association wins grant for anti-quagga campaign \(8/21/14\)](#)

Clean. Drain. Dry. That's the message the Lake Havasu Marine Association has for boaters at the lake, and soon they will be expanding their reach.

#### [Keeping The Gem State Quagga Mussel Free \(8/11/14\)](#)

Twin Falls, Idaho ( KMVT-TV / KSVT-TV ) Keeping the noxious weeds out of southern Idaho is the job of the Twin Falls County Noxious Weed Bureau. And the same goes for invasive pest hitching a ride on out-of-state watercraft.

#### [BC: Mussel meeting demanded \(8/8/14\)](#)

Frustration is growing over the perceived lack of action by senior government on invasive mussels. The Okanagan Basin Water Board is demanding a meeting with Environment Minister Mary Polack to discuss the need for inspection stations to ensure quagga and zebra mussels don't get into local lakes. "We have been sounding the alarm for two years now, warning of the threat invasive zebra and quagga mussels pose to the Okanagan and elsewhere," said Doug Findlater, chairperson.....

#### [Lake Erie: Is it time to worry again about its health? \(8/12/14\)](#)

... "Zebra mussels filter the water, which allows sunlight to penetrate deeper and allows algae growth farther down in the water column," Girosky said. "Algae doesn't just sit at the top. The farther down the light can go increases the opportunity of photosynthesis. Zebra mussels also resuspend phosphorus into the water column, which makes it available to the algae."

Calif: [County Flexing Financial Muscles to Help Eradicate Mussels](#) (8/8/14)

The county Board of Supervisors will consider appropriating \$1.75 million on Tuesday to fund the state's quagga and zebra mussel inspection and education program at Castaic and Pyramid lakes.....

## **BOAT INSPECTION NEWS**

[Fight against quagga mussels comes to Lake Sonoma and Lake Mendocino, CA \(8/29/14\)](#)

A consortium of government agencies with a stake in the health of Lake Sonoma and Lake Mendocino are putting the finishing touches on a mandatory boat inspection strategy they hope will hold off the scourge of invasive mussels already fouling waterways around the state.....

[Boaters Asked to Help Fight Spread of Invasive Quagga and Zebra Mussels Over Labor Day Weekend \(8/29/14\)](#)

California agencies combating the spread of invasive quagga and zebra mussels remind boaters to remain alert over the three-day Labor Day weekend.....

[Invasive Species Plan, Boat Inspection Funding Approved \(8/21/14\)](#)

Lake Tahoe, Stateline, NV – The federal Aquatic Nuisance Species Task Force in Washington, D.C., recently approved a five-year revision to the Lake Tahoe Region Aquatic Invasive Species Management Plan, calling it a model for the nation. Meanwhile, the Bureau of Land Management is providing another \$750,000 through the Southern Nevada Public Land Management Act and U.S. Fish and Wildlife Service to help fund Lake Tahoe's robust boat inspection program through at least 2015, the Tahoe Regional Planning Agency announced Thursday.

[Dogs training to detect invasive mussels in Flathead will visit Missoula \(8/14/14\)](#)

A pilot project in the Flathead Basin and across the border in Alberta is assessing whether detection dogs can assist in keeping invasive quagga and zebra mussels out of Montana waterways.....

[Alien invasion - My time as a government agent, searching for invasive species \(8/21/14\)](#)

America is being invaded by aliens! I'm not talking about foreign children crossing our southern border or malevolent beings from outer space. This is an invasion of tiny plants and animals from around the world that threaten our waterways and even our way of life.....

## **MARINE**

[Isle Royale fights invasive species by testing ballast water \(8/21/14\)](#)

A few days ago, Isle Royale National Park conducted emergency ballast water treatment tests on its Ranger III vessel as part of a study in prohibiting the transfer of invasive species to Isle Royale.....

### [Marine invasive species in the Arctic \(8/18/14\)](#)

Arctic marine ecosystems are among the most productive and most vulnerable in the world, both from an economic and ecological perspective of growing accessibility. The complexity of Arctic marine ecosystems and their location poses challenges for management, valuation, and the establishment of sound policy to protect them. This special issue of *Temasord* presents papers from a workshop devoted to this topic. In October 2013, a group of multidisciplinary experts on marine invasive species and the Arctic came together in Esbjerg, DK for a two-day workshop titled: “Marine Invasive Species in the Arctic: Management Issues.” Attendees of the workshop came from academic, governmental and scientific institutions in Denmark and the Faroe Islands, Sweden, Norway, Finland, Iceland, Canada, and the United States. This volume presents papers based on the presentations of the workshop speakers.

### [Maine rule changes aim to rid waters of invasive green crab \(8/15/14\)](#)

Maine Department of Marine Resources rule changes this week means commercial fishermen no longer need a special license for harvesting and selling green crabs.....

### [Green crab may soon be a diner's delight \(9/1/14\)](#)

UPEI, DFO pilot project aims to harvest, market the invasive species as a delicacy.....

### [Biofouling Removed, Disinfected by New Australian System \(8/15/14\)](#)

The unique in-water cleaning and filtration system uses a diver to clean marine organisms from a hull using either rotating brushes or blades without damaging the anti-fouling coating on the vessel. The water and debris are then filtered and passed through a UV disinfection unit.

## **WEEDS**

### [RRWC offers new fight against salvinia \(9/1/14\)](#)

NATCHITOCHEs – The Red River Waterway Commission and Stephen F. Austin State University hosted an educational field day on Tuesday that highlighted a recent discovery — *Endocides* — a new method to help control the spread of the aquatic invasive plant Giant salvinia....

### [Volunteers remove watermilfoil infestation from Upper Truckee River \(8/12/14\)](#)

Volunteers trained by an Eyes on the Lake program found and last week almost entirely removed a sizable infestation of Eurasian watermilfoil on the lower reaches of the Upper Truckee River near Tahoe Keys Marina....

### [Clear Lake, California: Management resources depleted as aquatic weeds spread \(8/25/14\)](#)

LAKE COUNTY >> As summer comes to an end, the county's management of Clear Lake's weeds has finished for the year. But with lower lake levels allowing weeds to grow further from the shoreline, more invasive weeds taking root and shrinking resources for weed management, Lake County's program to control the plants continues to fight an uphill battle....

## **FISH**

### [Bait dumping offers invaders path to Great lakes \(8/28/114\)](#)

TRAVERSE CITY, Mich. (AP) - Inadequate regulation of the bait fish trade and carelessness on the part of anglers may be allowing invasive species - including widely feared Asian carp - to reach the Great Lakes and inland waterways, according to a scientific paper released Thursday....

Journal article abstract can be found [HERE](#)

### [FWP seeks to poison brook trout in Yellowstone tributary \(8/19/14\)](#)

Concerned that 10 years of work to remove brook trout from Soda Butte Creek has been ineffective, Montana Fish, Wildlife and Parks officials are considering poisoning about 12 miles of the stream just outside Yellowstone National Park to kill the nonnatives. More than a predator:

### [Studys finds invasive lionfish are 'terminators' \(8/22/14\)](#)

SACRAMENTO, Calif. – New research on the predatory nature of red lionfish, the invasive Pacific Ocean species that is decimating native fish populations in parts of the Caribbean Sea and Atlantic Ocean, seems to indicate that lionfish are not just a predator, but more like the “terminator” of movie fame.

### [Talking Invasive Fish, Clean Water, and Swimmers Itch at the Flathead Lake Biological Station \(8/12/14,with audio\)](#)

... “We’re constantly worried about the next invasive species. Which one will it be; I personally think that small mouthed bass are an issue. But, also, we’re really so worried about these mussels,” Stanford said.

### [Invasive species plague Montana lakes \(8/14/14\)](#)

The effects of illegal non-native fish introduction into these waters, the lynchpin of the issue, have frustrated Montana Fish, Wildlife and Parks (FWP) agents and anglers alike and has sparked an effort to end the introductions that wreak havoc to the natural Montana waters through predation, overpopulation, species hybridization, competition, disease transmission and more

### [Exotic fish dumped by Coquitlam, BC pet owners become invasive species \(8/14/14\)](#)

They're easy to take care of, inexpensive and entertaining, but tropical fish and other aquatic pets including exotic fish, turtles, bass and carp are getting into local waterways and breeding and competing with native species. In Coquitlam, so many exotic fish are winding up in Como Lake that the city is cracking down with hefty fines ranging from \$2,500 to \$250,000.....

## **OTHER**

### [Review of harvest incentives to control invasive species \(July 2014\)](#)

From nutria to lionfish, recent interest has grown in ways to encourage the harvest and use species as a means of controlling or eradicating invasive populations. If used properly, incentivizing and

encouraging public or commercial harvest represents a significant opportunity to support ecosystem and natural resource management while simultaneously boosting economic development and environmental awareness. However, if used incorrectly, negative consequences such as further spread can occur. Success depends on interactions between the species, its invasive range, and socioeconomic factors, yet little guidance is available on how to use incentivized harvest as an effective management tool. This paper reviews the biological, ecological, human health, and socioeconomic factors involved in invasive species incentive programs. We also offer recommendations to assist in development and implementation of a successful harvest program.

#### [Toxicity of a Traditional Molluscicide to Asian Clam Veligers \(June 2014\)](#)

Aquaculture and hatchery industries are in need of effective control methods to reduce the risk of spreading aquatic invasive species, such as the Asian clam *Corbicula fluminea*, through aquaculture and hatchery activities. The planktonic nature of Asian clam veligers enables this life stage to enter water-based infrastructure undetected, including hatchery trucks used to stock fish. Once in hatchery trucks, veligers can disperse overland and establish in previously uninvaded habitats. As a result, there is a need to develop techniques that result in veliger mortality but do not harm fish. In September 2012, we conducted laboratory trials to determine if a molluscicide (750 mg/L potassium chloride and 25 mg/L formalin) commonly used to kill zebra mussel (*Dreissena polymorpha*) veligers in hatchery trucks can also effectively kill Asian clam veligers. We exposed Asian clam veligers to this molluscicide for 1, 3, and 5 h in each of two water types: deionized water and filtered lake water. We found <20% mortality at the 1-h exposure period and 100% mortality at both the 3-h and 5-h exposure periods, regardless of water type. This laboratory study represents an important step toward reducing the spread of Asian clams by aquaculture facilities.

#### [Presence of Invasive Species Complicates Efforts to Protect Dwindling Native Species \(8/8/14\)](#)

For industries struggling to comply with protections for endangered species—or declining species that may soon be listed as endangered—one of the most difficult complicating factors is the presence of invasive species.

#### [Bullfrogs keeping Steveston, BC residents up at night \(8/19/14\)](#)

Steveston residents say they're fed up with a growing chorus of bullfrogs that is keeping them up at night, but the provincial government says there's not a lot it can do.

#### [Aquatic invasive species and emerging infectious disease threats: A One Health perspective \(June 2014\)](#)

An estimated 60–75% of the world's infectious diseases of humans are zoonotic, infecting both humans and other animals. Many are vector borne, relying on transmission by mosquitoes and biting flies that are aquatic for much of their lifespan. Others rely on aquatic molluscs, fishes, or other aquatic animals for completion of their transmission cycles, and others develop and thrive in diverse freshwater environments outside any host. While such diseases remain firmly endemic in many areas, new outbreaks of infectious diseases associated with freshwater have occurred throughout the world, and many others have spread to new locations.....

#### [New app designed to stop invasion of Texas \(8/29/14\)](#)

A new app designed to stop invasive plant, insect and animal species from taking hold in Texas has been launched.....

## JOBS/RFPS

### [Oregon: Natural Resource Specialist 2 \(Ballast Water Inspector half-time\)](#)

Closing Date: Mon. **09/08/14** 11:59 PM Pacific Time  
Salary: \$3,383.00 - \$4,929.00 Monthly  
Job Type: Permanent  
Location: Portland, Oregon  
Agency: Environmental Quality - Operations Division

### [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>

### **Smith-Root, Inc.: Fish Physiologist / Fish Biologist, Vancouver, Washington, USA**

Overview: Develop, manage and assist in applied field and laboratory-based research concerning the conservation of native species and management or control of non-native fish and invertebrates. The successful candidate will work with Smith-Root clients and engineers to address these challenges using Smith-Root technologies and other emerging techniques. The person will work closely with other Smith-Root scientists and project managers to develop proposals, conduct research, analyze data, prepare scientific manuscripts, technical reports, and communicate findings to non-technical and technical audiences. Preferred candidates will have an advanced degree in fish physiology, fisheries biology or a closely related field. Professional biologists with exceptional skill sets and qualifications will also be considered. Experience with fish response to electrical or other stimuli is desirable. Experience conducting and statistically analyzing fish movement studies or experience with acoustic telemetry and animal behavior software is a plus. Candidates with experience with eDNA sampling and analysis will also be considered.

#### Minimum Qualifications:

- Master's degree and two years' experience conducting fisheries/aquatic organism research
- Demonstrated ability to lead and conduct applied research projects
- Excellent writing and communication skills

#### **Deadline to Apply: September 29, 2014.**

Please send cover letter describing your experience and qualifications, curriculum vitae and names of three references to Phil Moy, PhD, Chief Scientist c/o Alecia Malone ([amalone@smith-root.com](mailto:amalone@smith-root.com)).

## LEGISLATION/FEDERAL ACTIONS/BUDGET

### [The Lacey Act failed to keep Asian carp out: Can new bills before Congress do better? \(8/26/14\)](#)

When it comes to invasive species prevention, ballast water and Chicago-area canals might come to mind as prime targets for prevention efforts, but there is another important pathway for invasive species that does not grab as many headlines. In the jargon of Michigan State University Extension educators,

biologists and policy-makers this is referred to as “organisms in trade”, or OIT. The federal regulation of organisms in trade dates back to the Lacey Act, which was passed in 1900. Through the years, the Lacey Act has been updated and specific taxa (species or groups of species) have been listed as “injurious” or removed from that list.....

## MEETINGS

### SEPTEMBER

**Western Regional Panel:** The annual meeting of The Western Regional Panel on Aquatic Nuisance Species will be held in Houston September 17-19, 2014. This will be a joint meeting of The WRP and the [Gulf and South Atlantic Panel](#). The Crowne Plaza Downtown is the meeting venue and host hotel. The [WRP website](#) will have more information on hotel reservations and more in the near future.

[Meeting the Challenge: Preventing, Detecting, and Controlling Invasive Plants September 16-17, 2014, University of Washington Botanic Gardens, Seattle, WA.](#)

[Oregon - Invasive Species Cook-off 2014 - Eradication by Mastication: A benefit for the Institute for Applied Ecology, Sunday, September 28, 2014, 2 pm - 7 pm, Zenith Vineyard \(Salem, OR\)](#)

### OCTOBER

The next meeting of the **Columbia River Basin Team** of the 100<sup>th</sup> Meridian Initiative will be held October 1-2 in Vancouver, Washington. Further details on this meeting will be sent out in the near future on this list serve.

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.

[California Invasive Plant Council Symposium at California State University - Chico, October 8-11, 2014.](#)

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