



AQUATIC INVASIVE SPECIES NEWS

4/04/16

DREISSENID MUSSELS

[Lake Michigan: Lowest catch of trout and salmon since at least 1990 \(3/23/16\)](#)

...."The Lake Michigan fishery continues to change with variability in the forage base due to quagga mussels as well as low numbers of available forage in the lake," said Brad Eggold, southern Lake Michigan fisheries supervisor for the Wisconsin Department of Natural Resources....

[Senator McCain: Quagga mussels delay hatchery repairs \(3/21/16\)](#)

....."Hopefully we're going to start in July. We're behind schedule," McCain said Friday. "One of the reasons why they're behind schedule is this quagga mussel that is now moved down out of the Great Lakes and now down the Colorado....."

NE: USGS reports zebra mussel find at Nuclear Power Plant

State: NE

County: Washington

Drainage: Big Papillion-Mosquito (10230006)

Location: Missouri River, inside the Fort Calhoun Nuclear Power Plant (R.M. 645.6)

More information on this specimen can be found:

<http://nas.er.usgs.gov/queries/specimenviewer.aspx?SpecimenID=1247642>

BOAT INSPECTION/DECON NEWS

[BC: Permanent stations to protect B.C. from invasive mussels \(3/30/16\)](#)

KELOWNA – Following a successful pilot program last year, Premier Christy Clark announced a \$2 million boost to the province’s invasive mussel defence program that will see eight permanent mussel inspection stations installed at major entry points along B.C.’s borders.....

Related Story: [Fight against invasive mussels in B.C. strengthened with funding of new inspection stations \(3/30/16\)](#)

[MT: Pablo boat inspection station – part of invasive mussel defense – opens early \(3/29/16\)](#)

PABLO – An early opening this month for two of the three aquatic invasive species watercraft inspection stations guarding the Flathead “left a hole in our perimeter defense big enough to drive a truck through” on U.S. Highway 93, officials admitted.....

Local TV coverage [HERE](#)

[CO: Chatfield Reservoir officials wary of invasive species \(3/31/16\)](#)

Boating season is about to be in full effect at [Chatfield Reservoir](#) for 2016, but much like the past few years, boaters must do their due diligence before getting on the water. In 2008, Chatfield State Park and the others in the Colorado Parks and Wildlife system began inspecting boats to help prevent the spread of aquatic nuisance species, and this year will be no different as a new invasive species — the New Zealand mud snail — was found at the reservoir last year.

[NY: Lake George Advocates Support Permanent Boat Inspection Program \(3/31/16\)](#)

For the last two years, all boats entering Lake George have had to meet three requirements: they must be cleaned, drained, and dry. If not, boaters are sent to a washing station free of charge.....

[MD: Officials hope to keep invasive zebra mussels from reservoirs \(3/29/16\)](#)

....MDNR and DPW are asking boaters to sign affidavits that they will only use their boats in one of the city-owned reservoirs. They advocate boaters clean their boats, too....
[With video]

MARINE

[Boat debris suspected to be from Japan tsunami washes ashore in southern Oregon \(3/22/16\)](#)

....Biologists over the next several days will study and identify algae samples, a living Planes crab and mollusks taken from the boat.....

[Proposed EU ban for North American lobsters draws heat from scientists \(3/23/16\)](#)

.....Boris Worm, a marine conservation biologist at Dalhousie University in Halifax, said the onus is on Sweden to justify a move that would weigh heavily on the North American industry. "I've never heard of lobster being invasive anywhere, really," said Worm. "Things get introduced all the time and only a few (marine) species that get introduced actually become invasive, meaning they become a real threat."...

BALLAST WATER/BIOFOULING

[Industry fighting multiple hurdles to meet ballast water standards \(4/1/16\)](#)

[*Note: you may need to register and open a free account to read the article*]

As international ballast water regulations edge closer, players across the industry are considering a number of challenges, including dock space for ballast treatment system installation, sampling methods, and emissions. When the convention comes into force, internationally trading ships will have to either have an approved ballast water treatment system on board or only call at ports that have ballast water reception facilities. There are a number of reception facilities – *IHS Fairplay* data reveals that there are 533 ports worldwide, most densely clustered around North America, Europe, and parts of China. However, many ships will be installing ballast water management systems and speaking to *IHS Fairplay* recently, a spokesman for the Liberian register confirmed that it expects a shortfall of dockage space available for ships to install these systems in 2020. This is based, he said, on an estimated annual dockage space capacity for approximately 6,000 ships and “peaked demand” for 9,500 ships in 2020.....

Related Story: [Ballast Water Regulations: A Vessel Owner Dilemma During This Uncertain Time \(4/1/16\)](#)

[Calif, Withdrawal: Proposed regulations titled Article 4.8, Biofouling Management to Minimize the Transfer of Nonindigenous Species from Vessels Operating in California Waters \(3/23/16\)](#)

....Pursuant to California Government Code section 11349.3(c), staff of the State Lands Commission expects to republish and commence a new 45-day public comment period in May 2016. Stakeholders and interested parties will be notified on the commencement of that new public comment period.....

Go [HERE](#) for further information on CSLC's California Marine Invasive Species Program

[IMO-GloBallast R&D Forum on Ballast Water Management highlights solutions \(3/31/16\)](#)

.....Some 140 participants from IMO Member States, academia, private sector, testing facilities and the maritime technology industry were meeting at the International Civil Aviation Organization (ICAO) in Montreal, Canada, for the 6th Global Environment Facility (GEF)-United Nations Development Program (UNDP)-IMO GloBallast R&D Forum and Exhibition on Ballast Water Management (16-18 March 2016), under the banner "Ballast Water Management Convention – moving towards implementation".....

FISH

[Abundance Trends, Distribution, and Habitat Associations of the Invasive Mississippi Silverside \(*Menidia audens*\) in the Sacramento–San Joaquin Delta, California \(2016\)](#)

Although many alien fish species have colonized the Sacramento–San Joaquin Delta (Delta), few are as pervasive and abundant as Mississippi Silversides (*Menidia audens*). Moreover, Mississippi Silversides are hypothesized to be an intra-guild predator of the endangered Delta Smelt (*Hypomesus transpacificus*). Because of their prevalence in the Delta and potential predation on Delta Smelt, Mississippi Silversides may have far-reaching effects on both the aquatic ecosystem and conservation management policies of the region. Yet little is known about how Mississippi Silverside abundance and distribution have changed within the Delta, or how they respond to various habitat attributes such as temperature, turbidity, and flow. We examined 19 years of beach seine survey data to evaluate how the abundance and distribution of Mississippi Silversides has changed over the years, characterize their habitat associations, and determine the environmental factors that predict their annual cohort strength.....

[WI: Lock closure creates dead end for boaters \(3/27/16\)](#)

MENASHA - Generations of boaters have passed through the Menasha lock since it opened in 1856 as the gateway between Lake Winnebago and the lower Fox River. In the past five years, 9,565 boats and 36,749 passengers traveled through the lock, according to records kept by the Fox River Navigational System Authority (FRNSA). The boat traffic and the business it brings are now in jeopardy. The lock was closed indefinitely in September by the Wisconsin Department of Natural Resources to prevent round gobies, an invasive species, from reaching the Lake Winnebago System. It will remain closed for the start of the 2016 boating season, if not for the entire season and beyond....

[FL: Catch nonnative freshwater fish, get the chance to win prizes \(4/1/16\)](#)

Want the opportunity to win prizes while helping to document and remove nonnative freshwater fish from Florida's waters? Consider participating in the second statewide Nonnative Fish Catch, Click and Report Contest, coordinated by the Florida Fish and Wildlife Conservation Commission (FWC) and partners. The 2016 contest kicks off at 6 a.m. on April 1 and runs until midnight on April 30.....

[AK: Fish and Game targets Soldotna Creek for summer pike eradication \(3/24/16\)](#)

The Alaska Department of Fish and Game is preparing to move forward in the second phase of a project to eradicate the invasive northern pike from Kenai

[NM: Worries linger over pesticide to be used in Gila trout reintroduction \(3/31/16\)](#)

The New Mexico Game and Fish Department wants to use a pesticide that some scientists say could pose health risks for humans and other species to help re-establish the native Gila trout population in waterways in the Gila National Forest. The trout were wiped out by a massive 2012 wildfire.....

See the NMGFD Gila Trout Recovery & Angling page [HERE](#)

[Female reproductive biology of an exotic suckermouth armored catfish \(Loricariidae\) in the San Marcos River, Hays Co., Texas, with observations on environmental triggers \(3/29/16\)](#)

Invasive populations of suckermouth catfishes (Loricariidae) are native to Central and South America, but have become established in US and Mexican waters since the 1950's and have been reported to have negative impacts on North American freshwater ecosystems. Two genera of loricariids have been reported from Texas waters (*Hypostomus* spp. and *Pterygoplichthys* spp.), both of which have become established in aquatic ecosystems where there are warm-water refugia, or suitable and seasonally stable temperatures. In an effort to better understand the invasive dynamics of these loricariids in novel ecosystems, aspects of their reproductive biology such as fecundity, seasonality of spawning activity, and spawning frequency of the individual fish were studied for *Hypostomus* cf. *niceforoi* living in the spring-fed San Marcos River, Texas. Fecundity was similar to *Hypostomus* spp. in the native range. There did not appear to be any synchronicity of spawning between individual fish within the invasive population, and there was a hint in the oocyte size-frequency data that some of the fish may be spawning multiple times per year....

AQUACULTURE

[FactCheck.org: False Claims about 'Frankenfish' \(3/23/16\)](#)

Alaska Sen. Lisa Murkowski says she opposes federal approval of genetically engineered salmon “[for the health of both consumers and fisheries.](#)” But there is no scientific evidence that suggests GE salmon will pose a significant risk to either. Murkowski claims GE salmon may “interbreed with the wild stocks, and thus perhaps destroy them.” But GE salmon have been rendered sterile — meaning they can’t interbreed with wild salmon stocks. Geographic and physical confinement measures also limit the likelihood that the GE fish will escape and survive.....

[Lawsuit Challenges FDA’s Approval of Genetically Engineered Salmon \(3/31/16\)](#)

San Francisco, CA — A broad coalition of environmental, consumer, and commercial and recreational fishing organizations yesterday [sued the U.S. Food and Drug Administration](#) (FDA) for approving the first-ever genetically engineered (GE) food animal, an Atlantic salmon engineered to grow quickly. The man-made salmon was created by AquaBounty Technologies, Inc. with DNA from three fish: Atlantic salmon, Pacific king salmon, and Arctic ocean eelpout. This marks the first time any government in the world has approved a GE animal for commercial sale and consumption.....

OTHER

[Lake Invaders: Invasive Species and the Battle for the Future of the Great Lakes \(Great Lakes Books Series\) \(4/4/16\)](#)

There are more than 180 exotic species in the Great Lakes. Some, such as green algae, the Asian tapeworm, and the suckermouth minnow, have had little or no impact so far. But a handful of others—sea lamprey, alewife, round goby, quagga mussel, zebra mussel, Eurasian watermilfoil, spiny water flea, and rusty crayfish—have conducted an all-out assault on the Great Lakes and are winning the battle. In *Lake Invaders: Invasive Species and the Battle for the Future of the Great Lakes*, William Rapai focuses on the impact of these invasives. Chapters delve into the ecological and economic damage that has occurred and is still occurring and explore educational efforts and policies designed to prevent new introductions into the Great Lakes.

[Alien species as a driver of recent extinctions \(2/17/16\)](#)

We assessed the prevalence of alien species as a driver of recent extinctions in five major taxa (plants, amphibians, reptiles, birds and mammals), using data from the IUCN Red List. Our results show that alien species are the second most common threat associated with species that have gone completely extinct from these taxa since AD 1500. Aliens are

the most common threat associated with extinctions in three of the five taxa analysed, and for vertebrate extinctions overall....[Full article = \$\$\$]

[California Is Finally Enjoying Some Rainfall—and So Are Its Invasive Species \(3/31/16\)](#)

The much-needed El Niño downpours might be helping exotic snakes, insects, and plants spread into new area.....

[Efficacy of Commercially Available Quaternary Ammonium Compounds for Controlling New Zealand Mudsnails *Potamopyrgus antipodarum* \(3/22/2016\)](#)

The New Zealand mudsnail *Potamopyrgus antipodarum* is an invasive species that can be transported to and established in new bodies of water on gear used by aquatic professionals, anglers, and aquatic recreationists. Sparquat 256, a standard disinfectant for controlling the spread of mudsnails, was recently discontinued by the manufacturer. Our objective was to find an industrial-strength, commercially available quaternary ammonium compound (QAC) that could replace Sparquat 256 for disinfection purposes. The efficacy of three products—Quat 4, Green Solutions High Dilutions Disinfectant 256 (GS 256), and Super HDQ Neutral (Super HDQ)—were tested using bath disinfection at multiple concentrations and exposure durations. For bath disinfection purposes, GS 256 and Super HDQ were the most effective. Super HDQ caused higher mortality rates at 48 h postexposure and was therefore tested and found to be highly effective for spray disinfection to prevent transporting mudsnails on field equipment. Regardless of the QAC chosen, we recommend a bath disinfection rate of 0.4% and a spray disinfection rate of 0.8% QACs in solution with an exposure duration of 10 min. These concentrations meet or exceed minimum effective disinfection requirements for quagga mussels *Dreissena rostriformis bugensis*, zebra mussels *Dreissena polymorpha*, whirling disease *Myxobolus cerebralis*, and chytrid fungus *Batrachochytrium dendrobatidis*. [Full article = \$\$\$]

[No new confirmed aquatic invasive species in Great Lakes for 10 years \(3/27/16\)](#)

...“It’s really remarkable considering what had been happening,” said Doug Jensen, aquatic invasive species expert for Minnesota Sea Grant in Duluth. “I don’t think it’s luck. There are a lot of (scientists for multiple agencies) out looking, especially in the Duluth-Superior harbor, that I’m pretty confident that if something new was established here, they would have found it.”...

[Montana Invasive Species Assessment Results Now Available \(March 2016\)](#)

In 2015, the Montana Invasive Species Council contracted with Creative Resource Strategies, LLC to conduct an assessment and gap analysis of Montana’s invasive species programs. This report documents the outcomes of that assessment and analysis, and includes an articulation of key gaps as well as a set of recommendations to refine

strategies and approaches, and increase efficiencies to address invasive species. It is important to recognize that the information from survey respondents represents a snapshot in time—the 2015 fiscal year—for each contributing entity. In addition, the information obtained from survey respondents was, in numerous cases, incomplete, and in some cases, not accurate. Nevertheless, the information obtained is of value to identify gaps and inform a set of recommendations. Information in this report will serve to inform discussion at the [April 12–13, 2016, invasive species summit in Helena, Montana](#). The summit will engage invasive species managers, county leaders, local governments, tribal sovereign nations, private landowners, lake association members, conservation districts, angling groups, researchers, educators, and others to develop a shared invasive species framework for the state. Creating this shared vision is intended to improve the efficiency and effectiveness of invasive species efforts, which is critical given finite and limited financial and personnel resources.

Related Story: [Council releases first statewide assessment of invasive species management \(4/2/16\)](#)

[NZ methods earn praise \(3/30/16\)](#)

International researchers, including University of Otago zoologist Prof Phil Seddon, have highlighted the effectiveness of New Zealand moves to save endangered species by protecting them on predator-free offshore island. The [research study](#) was recently published in the online edition of Proceedings of the National Academy of Sciences.....

WEEDS

[Invasive English ivy: Don't hate it, weave it into a basket \(3/23/16\)](#)

...."My dream is for everyone in Portland to weave a grocery basket out of invasive species" to reduce paper, plastic and ivy, he says.....

[Calif: Invasive weed all but eliminated from Marin after 12-year effort \(3/25/16\)](#)

.....The aim of the state [Coastal Conservancy's San Francisco Estuary Invasive Spartina Project](#) is to eradicate the weed to protect the long-term health of the native marsh ecosystem and to restore the habitats that have been affected throughout the Bay Area.....

[BC: Study detects invasive Eurasian Milfoil in Lake Revelstoke, no invasive mussels \(3/31/16\)](#)

Study confirms Eurasian Milfoil found in Lake Revelstoke at Martha Creek, but no Quagga or Zebra mussels detected in local or B.C. lakes yet.....

[Physical Controls on the Distribution of the Submersed Aquatic Weed *Egeria densa* in the Sacramento–San Joaquin Delta and Implications for Habitat Restoration \(2016\)](#)

The invasive aquatic plant *Egeria densa* (Brazilian waterweed) is a submersed aquatic plant that has expanded its distribution in both its native and introduced range. Because the plant grows so densely, it can become a problem for management of waterways and habitat restoration projects. It is difficult to remove once established and mechanical and chemical controls have shown limited effectiveness. Here we analyze the distribution of *E. densa* in the Sacramento–San Joaquin Delta (the Delta) of California, USA, using environmental variables that include mean water velocity, mean water turbidity, and water column depth. We found that increasing water column depth strongly limited *E. densa* occurrence, especially when depth at mean lower low water (MLLW) exceeds 2 m. The highest probability of occurrence occurred at locations with a water column depth of –1 to 2 m at MLLW. Turbidity had a reliably negative effect on *E. densa* occurrence; as water clarity has increased in the Delta, it has likely favored the spread of the plant. Neither mean water velocity nor maximum water velocity had a reliable effect on *E. densa* probability, in spite of scientific and observational evidence that it is sensitive to flows. These results suggest potentially serious problems with restoration projects that emphasize shallow water habitat in the range favored by *E. densa*. Without some way to manage spread of the plant—through spraying, sediment loading, or gating—channels in such projects are at risk of being taken over by *E. densa*. However, these results should be interpreted in light of the fact that water outflow in water year 2008 was very low, and that *E. densa* abundance may be partially controlled by higher water flows than those considered here.

**FEDERAL/STATE/PROVINCIAL
LEGISLATION, ACTIONS**

CANADA

[Import Prohibitions and Requirements for Commercial Importers of Aquatic Species and for Travellers Under the Aquatic Invasive Species Regulations --Memorandum D19-8-5 \(3/23/16\)](#)

In Brief

1. This memorandum advises importers, travellers, customs brokers and service providers of the import prohibitions and requirements under the [*Aquatic Invasive Species Regulations*](#), (SOR/2015-121), which have been in effect since May 29, 2015.
2. The import prohibitions in the Regulations are intended to prevent the introduction into Canada of listed aquatic invasive species.

STATE

Washington Invasive Species Council ~~Reauthorization Vetoed (3/10/16)~~ **Reauthorized**

On 3/10 Governor Inslee vetoed [SB 6162](#) (HB 2331) which would have reauthorized and extended the Washington Invasive Species Council (WISC) and the Invasive Species Account to 2022. SB 6162 passed 49-0 and HB 2331 passed 96-1. The expiration of WISC is currently set for 2017. The Legislature first established the Invasive Species Council in 2006 to help minimize the effects of harmful invasive species, serve as a forum for identifying and understanding the issues involving invasive species, facilitate joint planning and cooperation, educate the public, and provide policy advice to the Legislature. The Invasive Species Account is used to carry out the purposes of the Council.

The WISC bill veto was a result of Governor's threat to veto the bills that were on his desk if the Legislature did not pass a budget by sine die – and he made good on that threat by vetoing 27 of the 37 bills (all Senate bills). Unfortunately, the invasives bill was one of the 27. Go [HERE](#) for further background.

NOW WHAT: The WISC has one more year to get the 5-year extension. There may be a chance still to pass the reauthorization in the special session (the House version 2331 could be resurrected), but this is uncertain at best.

!!!UPDATE!! -- [SB 6162](#) was “rescued” late last week in the special session and passed unanimously.

2016 1ST SPECIAL SESSION

IN THE SENATE Mar 28 On motion, Governor's veto overridden;
yeas, 43; nays, 0; absent, 0; excused, 6. (View Roll Calls)

IN THE HOUSE Mar 29 On motion, Governor's veto overridden;
yeas, 85; nays, 9; absent, 0; excused, 4. (View Roll Calls)

Filed with Secretary of State.

FEDERAL

[Rep. Gosar Leads Multiple Appropriations Requests to Combat Invasive Species \(4/1/16\)](#)

“The economic livelihood of countless rural communities throughout western states depends on the proper management of wildlife and invasive species. Arizona has some significant challenges when it comes to burros, tamarisk and quagga mussels. It is absolutely critical that there is coordination between federal, state and local stakeholders as well as the necessary resources in order to meet these unique challenges. It is up to the House of Representatives to ensure western priorities are addressed and I’m proud to lead these efforts for Arizona’s communities.”

[Interior approves \\$1.4M in grants for Northern Mariana Islands \(3/28/16\)](#)

“I am pleased to support Gov. Ralph Torres and the people of the Northern Marianas in a variety of projects that impact quality of life issues, promote government efficiency, and improve climate change adaptation and invasive species coordination.”

MEETINGS

APRIL

The [Montana Invasive Species Advisory Council](#) (MISAC) is hosting an Invasive Species Summit April 12-13, 2016, at the Gateway Center in Helena. The event is intended to engage stakeholders in an in-depth dialogue and examination of prevention, detection, rapid response, and management of invasive species in Montana. For further information contact Stephanie Hester, shester@mt.gov.

[ICAIS: 19th International Conference on Aquatic Invasive Species](#) Winnipeg, Manitoba, Canada; **April 10-14, 2016.**

MAY

[The Aquatic Ecosystem Health and Management Society](#) Marine & Freshwater Invasive Species Ecology, Impact and Management, Buenos Aires, Argentina, May 2-4, 2016.

[14th Ballast Water Management Conference](#): Date: 4th May 2016 - 5th May 2016 Location: Baltimore - MD - USA

[ANS Task Force, National Meeting, May 4-6, 2016, Traverse City, Michigan](#)

100th Meridian Initiative's Columbia River Basin Team: May 24 & 25, Spokane, Washington.

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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