



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

2/18/21

CLICK BELOW TO NAVIGATE

[PUBLIC COMMENT](#) \* [NEW SPECIES](#) \* [DREISSENID MUSSELS](#) \* [BOAT INSPECTION/DECON/TECH NEWS](#) \* [BALLAST WATER/BIOFOULING](#) \* [MARINE](#) \* [AQUACULTURE](#) \* [FISH](#) \* [AQUATIC PLANTS](#) \* [FRESHWATER](#) \* [CLIMATE CHANGE](#) \* [OTHER](#) \* [JOBS/GRANTS](#) \* [FEDERAL/STATE/PROVINCIAL LEGISLATION, RULES, ACTIONS](#) \* [TRAININGS, WEBINARS, CONFERENCES AND MEETINGS](#)

**February 22-26 is National Invasive Species Awareness Week. Please check the AIS News Events Section for a list of virtual events and webinars taking place during this week**

### **RECOMMENDED**

#### **[30 Years Later: Mussel invasion legacy reaches far beyond Great Lakes](#)**

The way J. Ellen Marsden remembers it, when she first suggested calling a new Great Lakes invasive species the quagga mussel, her colleague laughed, so the name stuck.

At the same time, it was no laughing matter. The arrival of a second non-native mussel, related to the already established zebra mussel, was a major complication in what was becoming one of the most significant invasive species events in American history.

“It really woke up the entire nation to aquatic invasive species,” said Marsden, who collected the first quagga mussel known in the Great Lakes system 30 years ago.

Quagga and zebra mussels, known collectively as dreissenid mussels, have irrevocably changed the Great Lakes ecosystem and others they’ve spread to.

But signs of a new normal are emerging as regular surveys of dreissenid mussels in the Great Lakes reveal a changing community of invaders.

...  
[\[Full article\]](#)

## PUBLIC COMMENT

---

### [Agency Information Collection Activities; Online Program Management System for Carbon Dioxide-Carp](#)

Interested persons are invited to submit comments on or before **March 12, 2021**. To effectively carry out our responsibilities under the Act and protect the aquatic resources of the United States, the Service, in collaboration with the U.S. Geological Survey, proposes to administer applications of Carbon Dioxide-Carp by registered management partners (applicators) and to collect information regarding the usage of Carbon Dioxide-Carp, an Environmental Protection Agency (EPA) registered product #6704-95 to control Asian carp. Carbon Dioxide-Carp is approved for use only by the U.S. Fish and Wildlife Service, U.S. Geological Survey, U.S. Army Corps of Engineers, State natural resource managers, or persons under their direct supervision.

The Service will use the information collected to document the label requests, maintain inventory, and document application results of Carbon Dioxide-Carp as an EPA registered product. The Service proposes to collect information from applicators

[\[More\]](#)

### [Comments sought on draft integrated letter report and programmatic environmental assessment for federal participation in watercraft inspection stations in Upper Missouri River Basin](#)

A draft integrated letter report and programmatic environmental assessment has been developed to determine the economic and environmental impacts of federal participation in state-managed watercraft inspection programs along the Upper Missouri River Basin in Montana, Wyoming, North Dakota, South Dakota and Nebraska. **Public comments on the draft EA will be accepted until March 2, 2021.**

The existing watercraft inspection programs are managed collaboratively by the states of Montana, Wyoming, North Dakota, South Dakota and Nebraska, where watercraft transported along highways are inspected for the presence of aquatic invasive species and decontaminated when detected.

If approved, federal participation in the program would be cost-shared (50 percent) with each of the states, and would employ a regional strategy to identify locations that would provide the greatest likelihood of preventing the spread of aquatic invasive species to reservoirs operated and maintained by the Corps in the Upper Missouri River Basin.

[Return to top](#)

Several strategies that could be used include: (1) Expanding the number of locations or hours of operation at existing inspection stations (2) Adding canine detection capabilities, (3) Increasing public awareness (4) Constructing site improvements and (5) Augmenting existing monitoring efforts and contingency and response planning efforts.

The public is encouraged to provide comments on the draft integrated letter report and programmatic environmental assessment, which is available for viewing at:  
[www.nwo.usace.army.mil/Missions/Civil-Works/Planning/Project-Reports/](http://www.nwo.usace.army.mil/Missions/Civil-Works/Planning/Project-Reports/)

## NEW SPECIES SIGHTINGS

---

**Want to get more new species alerts?**

USGS NAS: <https://nas.er.usgs.gov/AlertSystem/default.aspx>

IMAP INVASIVES: <https://www.imapinvasives.org>

### DREISSENIIDS

### OTHER AIS

### WATCH LIST

[Help the DFO by spotting the invasive European green crab in B.C. waters \(7/25/20\)](#)

... sightings can be reported to the DFO at [AISPACIFIC@dfo-mpo.gc.ca](mailto:AISPACIFIC@dfo-mpo.gc.ca) in the Pacific region. Those reporting are encouraged to submit a photograph, a GPS location and date of sighting, and a note of any distinguishing features...

[PNW Invasive Plant Council: Greetings Citizen Scientist!](#)

Please don't forget to upload your invasive species survey data for the season! We hope that some of you have been able to get in a few fall hikes and survey for invasive plants while out. The link to log into your EDDMapS page where you can log in, click on "Plants, " and scroll to the bottom of the page to find the PNW IPC icon link is here <https://www.eddmaps.org/west/report/survey.cfm>.

## DREISSENIID MUSSELS

---

[\[Wyoming\] Game and Fish seeking public input regarding invasive mussels at Flaming Gorge \(2/11/21\)](#)

Flaming Gorge boaters and recreationists; the Wyoming Game and Fish Department needs your input. Game and Fish is finalizing a plan that will guide actions in the event that aquatic invasive species — like zebra and quagga mussels — are discovered at Flaming Gorge Reservoir. If mussels are ever discovered at the Gorge, there will be changes that impact boaters and other recreationists in an effort to prevent their further spread throughout Wyoming and the nation. Game and Fish is asking anyone who boats, fishes or spends time enjoying the water at Flaming Gorge to take time to review the draft rapid response plan and provide input on the implementation through a short feedback form. Anyone can submit feedback until March 1.

#### [2020 tests show B.C. remains invasive mussel free \(2/10/21\)](#)

More than 900 samples were collected from lakes and rivers around the province in 2020, and no trace of the potentially destructive zebra and quagga mussels were found in any of them. Among the environmental groups celebrating the news is the Columbia Shuswap Invasive Species Society (CSISS) whose monitoring area is important in efforts to keep the mussels out of B.C. because it straddles the Trans-Canada Highway. Keeping an eye on the highways is an important part of keeping the invasive mussels out of B.C. waterways because they have been known to hitch a ride on boats being towed from elsewhere.

#### [\[Illinois\] Engineer devises system to stop zebra mussel spread from Bartlett lake \(2/3/21\)](#)

...So Welch researched the matter and found a sand filter system being used in the Ural and Caspian regions of Russia, where zebra mussels are native to rivers that serve as the region's drinking water source. Sand filtration systems were installed along or underneath the river to remove or kill adolescent zebra mussels, Welch said. "The solution we constructed was basically the reverse of theirs, where the lake water pushes through a sand filter into a pipe, which discharges into a shallow swale and heads for the river," Welch said. In his research, Welch could not find any agencies "this side of the Atlantic" using the sand filter method to control zebra mussels.

#### [\[Texas\] Local lakes won't benefit from plan that eradicated zebra mussels from Lake Waco \(1/31/21\)](#)

The eradication of zebra mussels from a Central Texas lake holds promise for stopping the spread of the invasive species across the state but the plan won't aid Bell County's two lakes, which have been infested for years.

Texas Parks and Wildlife Department officials determined that zebra mussels were successfully eradicated from Lake Waco after a rare opportunity that identified the infestation very early in 2014 and led to a multiple agency response, a spokeswoman said.

However, the infestations at Lake Belton and Stillhouse Hollow Lake — both outside Belton — were well established when discovered. The Lake Belton infestation, for example, likely occurred in 2012, but wasn't discovered until September 2013, a TPWD investigation determined.

#### [Colorado waters test free of invasive mussels; Aquatic Nuisance Species Management Plan approved \(1/25/21\)](#)

After three consecutive years of negative testing, Colorado Parks and Wildlife (CPW) has removed Green Mountain Reservoir in Summit County from the positive waters list for quagga mussels, a prohibited aquatic nuisance species (ANS). As Green Mountain Reservoir was the

only body of water in Colorado suspected of having a population of quagga mussels, this delisting makes Colorado a completely negative state for both zebra and quagga mussels.

### [Mussel-Phosphorus Puzzle: Invasive mussels are reshaping the chemistry of the Great Lakes \(1/27/21\)](#)

Since the late 1980s, four of the five Great Lakes have played host to an increasing number of invasive mussels. First came zebra mussels, followed shortly thereafter by quagga mussels, both members of the Dreissenid family whose native range includes the waters around Ukraine. Today, the filter-feeders comprise more than 90% of the total animal biomass of the Great Lakes (barring Lake Superior, whose depth and water chemistry make it a less suitable habitat for the two species of mussel).

The extensive presence of these mussels has heavy implications for the chemistry of the Great Lakes.

A [new study](#) published in the Proceedings of the National Academy of Sciences suggests that these rapacious bivalves play a dominating role in the phosphorus cycle in lakes Huron, Erie, Michigan and Ontario.

## **BOAT INSPECTION/DECON/TECH NEWS**

---

### [\[Oregon\] Invasive zebra mussels intercepted in Ashland on Super Bowl Sunday \(2/10/21\)](#)

Zebra mussels, an invasive species not found in Oregon, were found attached to a boat being hauled from Texas to Canada on Feb. 7.

ODFW technicians at the Ashland watercraft inspection station spotted the mussels on the boat's motor and other areas of the watercraft and performed a hot wash decontamination to kill and remove mussels from the vessel.

### [\[Washington\] Report highlights Whatcom 2020 Boat Inspection Program results \(2/9/21\)](#)

New safety and inspection protocols were implemented in 2020 to minimize the spread of COVID-19. Despite a delayed start and the closure of the Canadian border, inspectors conducted a total of 14,777 watercraft inspections at Lake Whatcom and Lake Samish—a 14 percent increase when compared to the 2019 season. The inspected watercraft came from a total of 293 different water bodies in 29 different states or provinces prior to launching at Lake Whatcom or Lake Samish in 2020, including 14 mussel infested waters. As watercraft continue to arrive from high-risk waters, the Whatcom Boat Inspection Program remains an important defense in the protection of our local lakes.

### [\[Saskatchewan\] Aquatic Invasive Species Found on Nine Boats \(2/8/21\)](#)

In recent years, Saskatchewan has set up its own inspection stations near the border, ensuring that boaters don't bring something nasty home. So far, it appears to be working.

### [Arkansas Boaters Reminded to Unplug When Trailering Vessels \(2/3/21\)](#)

Anglers and hunters and other boaters who use the state's waterways are being reminded by the Arkansas Game and Fish Commission's Fisheries Division of a new regulation that took effect

Jan. 1, 2021, requiring all boat drain plugs to be removed before and during trailering of vessels to and from access facilities on lakes, rivers and streams. A similar boat plug regulation was already in place in 21 other states to help stop the spread of aquatic nuisance species, and the new AGFC rule was part of an extensive list of regulations recommended by the Fisheries Division and approved by the Commission in 2020, to take effect beginning Jan. 1. Aquatic nuisance species such as silver carp, giant salvinia, zebra mussels and others continue to spread across waterbodies in Arkansas, and the AGFC has as its mission a responsibility to put mechanisms in place to slow the spread.

Mohit S, Johnson TB, Arnott SE (2021) [Recreational watercraft decontamination: can current recommendations reduce aquatic invasive species spread?](#) Management of Biological Invasions 12 (in press)

## BALLAST WATER/BIOFOULING

---

### [What we know about changes to ballast water regulations in US waters \(2/17/21\)](#)

The US follows a different path to IMO on ballast water treatment and has a completely different law-making procedure which many outside the US (and many inside) find difficult to follow. In this webinar, leading experts review the latest developments

### [The BWMS market: crystal clear or murky waters? \(2/18/21\)](#)

The BWMS market continues to evolve, and with so many IMO and US Coast Guard type-approved systems available, owners have moved on from type-approval worries to examining the crucial issue of selecting a ballast water management system (BWMS) for the ship's trade

### [Revised Coast Guard oversight for testing Ballast Water Management Systems \(2/17/21\)](#)

The Coast Guard's Office of Operating and Environmental Standards has published a revised 2021 Shipboard Technology Evaluation Program (STEP) Application Package. This application facilitates the process for both prototype Ballast Water Management Systems (BWMS) and BWMS undergoing U.S. Type Approval testing under the oversight of an Independent Laboratory (IL).

### [BWMS commissioning testing: making it work in practice \(2/16/21\)](#)

The confusion around ballast water treatment system type-approval and commissioning testing stems from the notion that buying and installing a ballast water treatment system that is type-approved by IMO and/or the US Coast Guard should be a sufficient investment to meet the required regulations.

### [TeamTec Offers New Ballast Water Management System Without Filter \(2/16/21\)](#)

TeamTec AS of Norway has signed an agreement with Kurita Water Industries Ltd. in Japan for the acquisition of all certificates and rights for a newly developed ballast water management system. This will be branded as TeamTec Senza BWMS. Senza BWMS uses direct biocide injection to treat ballast water. To the owner's as well as yard's benefit the system does not require the use of filters. Neutralizer is injected when discharging ballast water. Standard, non-proprietary chemicals are used during ballast (Sodium Hypochlorite) and de-ballast (Sodium Sulfit) operations.

### [Yacht sector concerned about ballast water rules: BIO-UV Group \(2/12/21\)](#)

France-based water treatment specialist BIO-UV Group is advising yacht owners and crews to ensure their vessels are compliant with the IMO Ballast Water Management Convention and USCG regulation. Yachts less than 50m in length are often considered recreational craft and exempt from the regulations. However, despite their size, some smaller vessels are over 400gt and have a ballast water capacity greater than 8m<sup>3</sup>. This means they must comply with the requirements set out in the BWM Convention.

### [Dumping ballast water into prime fishing grounds not OK, says fisherman \(2/7/21\)](#)

Transport Canada says it's safe, but Long Harbour harvester protests the practice...Murphy remains skeptical that the volume of water he observed can be properly monitored and treated, and thinks ships should release the water away from local fishing grounds.

"Why don't you pump the damn stuff out in a couple of thousand feet of water? Why do they have to wait till they come into the bottom of Long Harbour, the furthest place in, and pump out this damn ballast that could be polluted with anything?" he asked.

### [Launch of in-water cleaning standard to reduce biofouling \(2/4/21\)](#)

Bimco and the International Chamber of Shipping (ICS) have published the first industry standard on in-water cleaning of ships in order to prevent transfer of invasive species to local marine environments.

### [Lapsed documentation a significant cause of BWTS failure in US waters \(1/29/21\)](#)

Capt Hodgkinson said the US Coast Guard has been relatively lenient in its approach but is applying a firmer hand now that there are more BWTS available that have been type-approved for use in US waters.

"The majority of cases (loss prevention) is seeing are not actually failures of ballast water treatment systems but lapses in paperwork. It is where a vessel has been granted an exemption, but the exemption has been allowed to lapse," he said.

## **MARINE**

---

### [Warming waters cause increase in invasive green crabs \(2/17/21\)](#)

According to the National Oceanic and Atmospheric Administration, over the past two decades, the Gulf of Maine has warmed faster than 99 percent of the global ocean. This has caused many marine species to move north, farther offshore or to change their feeding patterns.

UNH's Nathan Furey, assistant professor of biological sciences, and Kathy Mills, research scientist at the Gulf of Maine Research Institute in Portland, Maine were awarded more than half a million dollars by the National Science Foundation this past summer to look into how warming waters and migrating fish populations are going to affect the diets of fish and the health of species in the northwest Atlantic Ocean.

Stephanie J Green Edwin D Grosholz. 2020. [Functional eradication as a framework for invasive species control](https://doi.org/10.1002/fee.2277). *Frontiers in Ecology and the Environment*. <https://doi.org/10.1002/fee.2277>

---

## AQUACULTURE

---

### [Cooke Aquaculture Faces New Lawsuit Over Puget Sound Net Pens Harm to Threatened and Endangered Orcas, Chinook, Steelhead, and Other Protected Wild Fish \(2/10/21\)](#)

Today, Wild Fish Conservancy (WFC) issued notice of its intent to sue seafood corporation Cooke Aquaculture Pacific (Cooke) for killing and harming threatened and endangered salmon, steelhead, orcas, and other protected species through operations at the company's Puget Sound net pens. The notice describes WFC's intent to file suit in 60-days unless these ongoing violations of the Endangered Species Act (ESA) are promptly addressed and corrected.

### [Vancouver Island hatcheries cull 8.3 million fish due to federal fish farm decision \(2/9/21\)](#)

Three hatcheries north of Campbell River are set to cull 8.3 million fish at an estimated revenue loss of \$195 million for aquaculture company Mowi Canada West.

Fry and smolts that were being raised at Big Tree Creek, Dalrymple and Ocean Falls hatcheries were to supply Mowi's Discovery Island fish farms. But now the fish will have to be culled as there are no other production sites to move them to, said Dean Dobrinsky, Mowi human resources, safety and communications manager.

### [Foreign Owned Salmon Farms Take Canada to Court \(1/26/21\)](#)

The wrath of British Columbia's foreign-owned fish farming industry is about to descend upon Ottawa. Three multinational corporations are seeking a judicial review and an injunction against the federal government's recent decision to remove industrial Atlantic salmon operations from the Discovery Islands by June 2022.

---

## FISH

---

### [Catch any northern pike at Utah Lake? Here's why DWR wants you to report it \(2/16/21\)](#)

State wildlife biologists are reminding anglers at Utah Lake, Provo River and Hobble Creek to report and release any tagged northern pike they catch in those waterways — otherwise, they're instructed to kill the fish. The fish species was illegally introduced into Utah Lake sometime around 2010. It quickly ballooned in population afterward and is cited — along with carp and white bass — as a predator for the threatened June sucker, a fish species endemic to Utah Lake.

Donald J. Orth Joseph D. Schmitt Corbin D. Hilling. 2020. [Hyperbole, Simile, Metaphor, and Invasivore: Messaging About non-native Blue Catfish Expansion](#). Fisheries Magazine.

[Invasive Asian carp is getting a new name and a public makeover to draw more eaters \(2/8/21\)](#)

Care for a plate of slimehead? How about some orange roughly?

It's the same fish, but one sounds much more palatable than the other. The U.S. National Marine Fisheries Service gave the slimehead a rebranding in the late 1970s in an effort to make the underused fish more marketable.

Now, Illinois officials and their partners want to give the invasive Asian carp threatening the Great Lakes a similar makeover. The goal: To grow the fish's image as a healthy, delicious, organic, sustainable food source — which will, in turn, get more fishermen removing more tons of the fish from Illinois rivers just outside of Lake Michigan.

Markets such as pet food, bait and fertilizer have expanded the use of invasive Asian carp in recent years. But "it's been hard to get the human consumption part of this because of the four-letter word: carp," said Kevin Irons, assistant chief of fisheries for the Illinois Department of Natural Resources.

[\[Wyoming\] Don't miss the LaBarge "Ding the Ling" fishing contest on Fontenelle Reservoir \(2/5/21\)](#)

With plenty of winter remaining in southwest Wyoming, now is a great time to get out those fishing poles and get ready for the Ding the Ling Burbot Derby at Fontenelle Reservoir on Feb. 19-21.

[Progress slowly being made to prevent Asian carp from entering Great Lakes \(1/31/21\)](#)

Money talks in many dialects, a useful quality in a land where citizens increasingly are inclined to hear what they want to believe.

The ongoing Asian carp fix, announced in 2019 partly to mute a chorus of squeaky wheels demanding that something be done about a widely perceived threat to the Great Lakes, recently got a shot of green grease.

Michigan, Illinois and the U.S. Army Corps of Engineers announced that they would contribute \$28.8 million to develop engineering and design plans during the next three to four years as a prelude to promised barrier construction.

The cost of the completed project meant to stifle the advance of the invasive carp into Lake Michigan has been set at \$858 million.

[\[Missouri\] MDC Proposes Regulation Changes For More Uses Of Grass Carp And Common Carp, Including As Live Bait \(1/22/21\)](#)

The Missouri Conservation Commission gave initial approval at its Jan. 22 open meeting to proposed regulation changes from the Missouri Department of Conservation (MDC) that would add to personal and commercial uses of grass carp and common carp.

Brooke E. Penaluna, Jennifer M. Allen, Ivan Arismendi, Taal Levi, Tiffany S. Garcia, Jason K. Walter. 2021. [Better boundaries: identifying the upper extent of fish distributions in forested streams using eDNA and electrofishing](#). Freshwater Ecology

## AQUATIC PLANTS

---

### FRESHWATER

---

#### [The Spiny Water Flea Could Wreak Havoc on the Most Pristine Waters in the Upper Midwest. Boaters and Anglers Are the Only Ones Who Can Stop It \(2/10/21\)](#)

It seems that the next troublesome invasive species in the Upper Midwest is a tiny one. The spiny water flea has been latching onto fishing equipment, traveling the Great Lakes for decades, but now they are being transported to some of the most pristine waters in the Upper Midwest. The spiny water flea is about half an inch long. It's a creepy little critter, with a single, distinctive black eyespot at the head of one to four spines. A barbed tail juts out of its backside, making up about 70 percent of its length. The translucent hitchhiker hooks onto watercraft, fishing lines—essentially everything and anything that touches the water—and then gets transported to new waters.

#### [\[British Columbia\] Authorities on watch for invasive clams after their discovery in Shuswap Lake \(1/28/21\)](#)

Efforts are mounting to combat invasive clams in Shuswap Lake, just as the provincial government has announced \$12 million to assist with the detection and removal of invasive species.

The Columbia Shuswap Invasive Species Society recently met with local and provincial government representatives, non-profits, First Nations and community members about the discovery of the freshwater *corbicula fluminea* clams last year.

Also known as golden, pygmy, or Asian clams, a live population was found in the Salmon Arm reach of Shuswap Lake.

The society says there is potential for the species to spread throughout the lake and also to other nearby water bodies.

## CLIMATE CHANGE

---

#### [CRS Report: Changes in the Arctic: Background and Issues for Congress \(2/1/21\)](#)

The diminishment of Arctic ice could lead in coming years to increased commercial shipping on two trans-Arctic sea routes—the Northern Sea Route close to Russia, and the Northwest Passage close to Alaska and through the Canadian archipelago—though the rate of increase in the use of these routes might not be as great as sometimes anticipated in press accounts. International guidelines for ships operating in Arctic waters have been recently updated.

## OTHER

---

[\[Video\] WSDA's 2020 Asian Giant Hornet Response - A look behind the scenes](#)

[\[Montana\] MISC issues recommendations from science advisory panel on Eastern heath snail \(2/2/21\)](#)

The Montana Invasive Species Council (MISC) today issued recommendations to guide necessary research and management efforts for the Eastern heath snail (EHS), a terrestrial invasive snail with established populations in Montana. The Montana Department of Agriculture (MDA) first discovered a population of the Eastern heath snail in July 2012 near Belt, MT. Since that time, MDA has worked with landowners and stakeholders in and around Belt to monitor and suppress the population and to detect and respond to new populations. Since their initial introduction, satellite populations have been discovered in Monarch, Great Falls, and in the Highwood areas.

[Washington State Invasive Species Council Updates Statewide Strategy to Prevent Invasive Species \(1/27/21\)](#)

The Washington Invasive Species Council has approved an updated statewide strategy to prevent invading plants and animals from taking hold in the state's forests, waters and farms. The strategy calls for a broad range of actions focusing on preventing new species from establishing here, educating the public and rapid deployment when species are found to prevent their spread.

[Clearing forests for imperiled rabbits may instead help invasives \(1/22/21\)](#)

Measures taken to improve habitats for New England cottontails in New York state may actually favor their invasive cousins, the eastern cottontail.

Clearcutting trees and conducting prescribed fires may be creating an ecological trap for the imperiled native rabbits.

“Any benefit New England cottontails get from early successional shrublands is erased when you have eastern cottontails,” said Amanda Cheeseman, a postdoctoral science and forestry researcher in at the State University of New York and the lead author of a [study](#) published recently in Ecology and Evolution.

## JOBS/GRANTS

---

**USFWS: Natural Resource Specialist (Integrated Pest Management and Invasive Species Coordinator), GS-0401-11/12**

The Fish & Wildlife Service has a permanent full-time opening to serve as our Integrated Pest Management and Invasive Species Coordinator for Fish & Wildlife Service - Legacy Region 6. This is a great opportunity for strategic and innovative approaches to invasive species management on National Wildlife Refuges. Amazing opportunities to work in some beautiful areas, oversee strike teams, and influence policy.

1 vacancy in one of the following locations: Great Falls, Montana, Lewistown, Montana, Coleharbor, North Dakota, Pingree, North Dakota

[R6-21-11036544-CL-DE](#) (announcement open to the general public)

[R6-21-11036545-CL-MP](#) (announcement open to federal employees and other groups with standing to apply as federal employees)

**Close: 3.01.21**

### Environmental Technician

Prairie Island Indian Community

Welch, Minnesota, United States

Description: The Environmental Technician will assist the Prairie Island Land & Environment staff in conducting field work and data management with tasks including, but not limited to, invasive species management, natural resource surveys, data entry, GIS mapping and project planning and contract preparation and assist with and facilitate invasive species projects and planning. This is a part time, year round position, with a minimum of 32 hours per week.

**Closing date March 19, 2021**

**Are you looking for a unique opportunity to support and lead a passionate team through an organizational transformation?** As [Multnomah County Drainage District's](#) next Executive Director, you can help fuel the vision of a growing team for improved flood safety, climate resiliency, habitat restoration, water quality, and environmental justice in Portland, OR. Help us to embed social and racial equity as we assemble an entirely new government organization.

Salary Range: \$146,318 - \$212,174

Job Type: Regular Status, Exempt, Full-Time

The Role: Provide strategic and motivational leadership to guide an extraordinarily talented staff through a unique transition for the agency of merging four districts into one. This future leader will be able to articulate a vision that integrates flood safety, climate resiliency, habitat restoration, water quality, and environmental justice. They will be able to bring diverse groups to consensus and have the knowledge and ability to provide services in a manner that respects diversity and promotes social equity in all aspects of the District's operations.

About You: You have a demonstrated commitment to MCDD's mission, vision, and values, including equity and social justice, through your personal and professional background. You can provide inspirational leadership and critical thinking as you bring the team and stakeholders together around a strategic vision. You are a consensus builder able to work with diverse stakeholders and are adept at navigating the political terrain.

Ideal Qualifications: Ten years relevant experience at an executive or senior management level.

An advanced educational degree in a relevant field may be substituted for some experience.

Experience in utility management, government affairs, and/or water resources management.

Apply Now! **Application closes February 28, 2021** [www.mcdd.org/employment](http://www.mcdd.org/employment)

### Aquatic Invasive Species (AIS) Specialist-Cheyenne

The Wyoming Game and Fish Department seeks a regional Aquatic Invasive Species (AIS) Specialists located in Cheyenne, WY. The AIS program's goal is to prevent the spread of AIS to and within Wyoming through public outreach, watercraft inspections, and monitoring. This position oversees the watercraft inspection stations, hires, trains, and supervises AIS inspectors,

conducts local outreach and education programs, conducts monitoring, summarizes data, writes reports, coordinates with local partners, updates rapid response plans, and conducts eradication and control efforts. **Closes 3/9/21**

[Wyoming] [Aquatic Invasive Species \(AIS\) Technician \(up to 49 positions\)-Statewide](#)

GENERAL DESCRIPTION: The Wyoming Game and Fish Department seeks to hire forty-nine (49) Aquatic Invasive Species Technicians throughout the state. These positions range in duration from 4 to 6 months. Technicians will inspect watercraft at key locations around the state in an effort to prevent the introduction and spread of aquatic invasive species and participate in outreach and education efforts to inform the general public about the impacts of aquatic invasive species.

**The Oregon Department of Fish and Wildlife** is hiring an Assistant District Wildlife Biologist position in the Newport office. Applicants can apply at Natural Resource Specialist 2 (Assistant District Wildlife Biologist)

[https://oregon.wd5.myworkdayjobs.com/SOR\\_External\\_Career\\_Site/job/Newport--ODFW/Natural-Resource-Specialist-2--Assistant-District-Wildlife-Biologist-REQ-58494-1](https://oregon.wd5.myworkdayjobs.com/SOR_External_Career_Site/job/Newport--ODFW/Natural-Resource-Specialist-2--Assistant-District-Wildlife-Biologist-REQ-58494-1)

**The job posting closes February 24, 2021.**

[The Institute for Applied Ecology \(IAE\)](#) is a dynamic nonprofit organization founded in 1999 whose mission is to conserve native species and habitats through restoration, research and education. IAE is seeking a Program Director with a diverse skillset to manage our Conservation Research Program. The Conservation Research Program works with partners throughout the western US to enhance the restoration and conservation of native habitats and species. Our partners include federal, state and local government agencies, tribes, academic institutions, non-profits, consulting firms, volunteers, businesses, and many others. We conduct rigorous research and monitoring, and communicate results to land managers and others. Our projects range from short-term experiments to decade-long studies. Position: Program Director 2

Office location: Corvallis, Oregon

Status: Regular, full time

Compensation: Exempt position, with monthly salary of \$5,373 - \$5,893, depending on experience, plus competitive benefits package (health insurance, 401k, sick leave and paid time off, etc.) **Closing date: March 1, 2021**

[IAE Plant Materials Coordinator Job Announcement](#)

JOB ANNOUNCEMENT: Plant Materials Coordinator 2

Office location: Corvallis, Oregon

Status: Regular, full time

Compensation: \$23 - \$26/hr. depending on experience, plus competitive benefits package.

Closing date: **For full consideration apply by March 1.**

[Invasive Species Early Detection Biotechnician: Oregon](#)

The Great Basin Institute is working cooperatively with the National Park Service Klamath Network (KLMN) Inventory & Monitoring (I&M) program to recruit two Biotechnicians for early detection of invasive species. The overall objective is to perform surveys of park roads and

trails to make observations of invasive species within the Klamath Network parks located throughout northern California and southern Oregon (see below). Data collected will contribute to a multi-year dataset aimed at detecting status and trends in park invasive species and is intended to provide decision-makers with location data of prioritized invasive species. Training and oversight will be provided for all duties. **Last Date to Apply 06/01/2021**

[Graduate Assistantships: MS opportunity in Crayfish/Invasive Species/Aquatic Ecology: Alabama](#)

The lab of Dr. Brian Helms at Troy University, in conjunction with the USDA Forest Service Southern Research Station, is seeking a M.S. student to study the effects of invasive crayfish and impoundments on stream food web structure. The successful candidate will refine a specific research question that addresses these topics through a combination of observational and experimental approaches.

The position will require funded travel and field work across the State of Alabama to sample crayfish assemblages and other target fauna in lentic and lotic habitats. Associated laboratory work will involve various analytical approaches incorporating gut contents, stable isotopes, and geometric morphometrics.

The position includes 2-year support through a combination of graduate research assistantships, graduate teaching assistantships, and tuition waivers. Teaching duties will vary by semester, but typically involve assisting or teaching introductory biology laboratory courses. The successful candidate will be a thesis-track student in the Master of Science in Environmental and Biological Sciences Program. **Last Date to Apply 03/01/2021**

Ideal start is summer 2021, but Fall 2021 start is also acceptable

[WDFW accepting applications for ALEA volunteer grants](#)

Beginning Dec. 1, the Washington Department of Fish and Wildlife (WDFW) will begin accepting grant applications for volunteer projects that benefit the state's fish and wildlife resources and the public's enjoyment of them.

WDFW estimates having approximately \$867,000 available for grants funded through the state's Aquatic Land Enhancement Account (ALEA) for projects occurring between July 1, 2021 through June 30, 2023. Applicants should be aware that the ALEA program may see its funding reduced or eliminated as part of budget reductions due to decreased state revenues resulting from the COVID-19 pandemic. The final amount available will be subject to legislative appropriation and won't be finalized until the 2021 legislative session.

The program funds five major types of projects, although other project types may be considered. Project types include habitat restoration, scientific research/citizen science, public education and outreach, facility development and artificial fish production.

The [Climate Adaptation Science Center Network](#), made up of nine regional Climate Adaptation Science Centers serving all US states, territories and affiliated Pacific Islands, is coming together to move climate adaptation science forward through its Federal Fiscal Year 2022 funding opportunity. Through this funding opportunity, an estimated \$10 million may be available across the network for research to support natural and cultural resource managers making science-based, climate adaptation decisions!

As part of this effort, the NW CASC is seeking proposals for Northwest climate adaptation research. Proposed projects should focus on developing scientific information

and products that can be directly applied to the following resource management priorities, either locally or broadly across landscapes in Idaho, Oregon, Washington and western Montana:

- Management of Invasive Species and Diseases under Future Climate Scenarios
- Management of Shrubland Ecosystems under Future Climate Scenarios
- Managing Climate-driven, Post-fire Ecological Transformation

Individuals from the following eligible organizations may submit proposals as the lead Principal Investigator:

- Members of the NW CASC Consortium (Boise State University, Oregon State University, University of Montana, University of Washington, Washington State University, Western Washington University)
- USGS centers, field stations, laboratories, Cooperative Research Units, etc.
- Researchers from other organizations (federal, state, tribal, non-governmental and other) may participate in CASC-funded projects and receive funds via subawards, contracts or interagency agreements through an eligible organization.

**Deadline for Statements of Interest: Friday, March 19, 2021 | 2 PM (PT)**

#### **Notice of Funding Opportunity: Recreational User Outreach Assessments:**

The Aquatic Nuisance Species Task Force requests proposals to build upon previous assessments and evaluate aspects of the Stop Aquatic Hitchhikers! campaign, Clean Drain Dry Initiative™, and PlayCleanGo campaign to determine what messages and delivery strategies are most effective to achieve desired behavioral changes. It is the intent that the results of this assessment will be used by the ANS Task Force, regional ANS panels, states, and partners to produce a national communications and marketing framework that increases the effectiveness and reach of outreach campaigns and encourages prevention behaviors to stop the spread of invasive species through recreational activities.

[Grants.gov Opportunity Number: F21AS00229](#)

Applications should be submitted electronically using the GrantSolutions system. **Applications are due by midnight Eastern Time on March 10, 2021.** Questions may be directed to Susan Pasko, US Fish and Wildlife Service at (703) 358-2466 or [susan\\_pasko@fws.gov](mailto:susan_pasko@fws.gov).

#### **Request for Proposals- Assessing Aquatic Nuisance Species Outreach Effectiveness for Behavior Change**

The Invasive Species Action Network (ISAN), in collaboration with the Western Regional Panel on Aquatic Nuisance Species (ANS) Education and Outreach Committee, is seeking proposals for a research assessment of the effectiveness of western states' ANS outreach campaign messaging and delivery methods for eliciting prevention behavior change. The goal of this study is to take a west-wide approach to evaluating the effectiveness of AIS public awareness campaign messaging and delivery methods used at state and local agency levels and the study will complement a similar assessment of federal campaigns planned by the ANS Task Force. This project addresses a priority need identified in the Quagga Zebra Mussel Action Plan and will provide insights and recommendations to aid in enhancing ANS outreach efforts to maximize effectiveness at a west-wide scale. The funding period will be approximately one year with maximum funding available under this grant offering in the amount of \$80,000. Proposal

packages and questions should be submitted to Monica McGarrity, committee chair, at [monica.mcgarrity@tpwd.texas.gov](mailto:monica.mcgarrity@tpwd.texas.gov)

Proposal submission deadline is March 31, 2021.

For more information, see the Request for Proposals at:

<https://westernregionalpanel.org/education-and-outreach-committee/>

[California State Parks Division of Boating and Waterways \(DBW\)](#) will accept applications for the 2021 Quagga and Zebra Mussel Infestation Prevention Grant Program: March 22, 2021 to April 30, 2021, subject to available funds.

Minimum Eligibility Requirements:

- Grant applicant must own/manage any aspect of the water
- in a reservoir where recreational activities are permitted;
- Grant applicant must demonstrate that the reservoir is uninfested with dreissenid mussels; and the reservoir must be open to the public.

To demonstrate that the reservoir is uninfested, applicants must provide mussel monitoring data collected since March 2020. Monitoring data can be from surface surveys, artificial substrates, and plankton tows.

- Tier 2 Implementation Grant:  
To be eligible for an implementation grant, applicants must provide a letter from the California Department of Fish and Wildlife (CDFW) at the time of application that states CDFW has reviewed and accepted a prevention plan for the reservoir (per Fish and Game Code Section 2302 and California Code of Regulations, Title 14, Section 672.1(b)). Funding may also be used towards monitoring.
- Tier 1 Planning and Assessment Grant:  
Applicants that do not already have a CDFW-accepted prevention plan can apply for a planning and assessment grant in order to develop a CDFW-accepted prevention plan for the reservoir. Funding may also be used towards monitoring.

For questions regarding quagga/zebra mussel monitoring, or for prevention planning, including how to obtain a letter from CDFW, contact CDFW at [Invasives@wildlife.ca.gov](mailto:Invasives@wildlife.ca.gov) or Telephone: (866) 440-9530. A Solicitation Notice including specific dates and application information will be sent prior to opening of the grant application window. The notice will also be posted on the [DBW website](#).

### [Department of the Interior – Bureau of Land Management Oregon/Washington Invasive and Noxious \[Plant\] Management](#)

BLM Oregon/Washington has an opportunity to work with partner organizations to collaboratively manage and coordinate treatments, inventories, monitoring, education and outreach, and prevention activities to control new infestations and treatment to remove existing infestations of noxious weeds and invasive species in order to gain efficiencies across multiple jurisdictions.

Individual projects support Secretarial Order 3347 Conservation Stewardship and Outdoor Recreation, through improving habitat and habitat improvement, and Secretarial Order 3372 Reducing Wildfire Risks on Department of the Interior Land through Active Management through reduction of fuel loads **Original Closing Date for Applications: May 25, 2021**

# FEDERAL/STATE/PROVINCIAL LEGISLATION, RULES, ACTIONS

---

## State/Province

[\[Wyoming\] Gordon announces economic recovery initiative, backs handful of bills up for consideration \(2/5/21\)](#)

Gordon also welcomed the passage of [House Bill 53](#) on Thursday. The legislation would implement several of the recommendations made in the final report of the governor's Invasive Species Initiative and allow local districts more latitude when implementing special management programs for invasive species.

### **Montana Legislature's 2021 Invasive's Related Bills:**

Look up additional information on individual bills and legislative concepts [HERE](#)

<b>Bills</b>	<b>Title</b>	<b>Status Date</b>	<b>Status</b>
<a href="#">HB24</a>	Create disaster resiliency fund	02/3/21	Bill Withdrawn per House Rule H30-50(3)(b)
<a href="#">HB40</a>	Revising laws on mandatory decontamination of vessels with ballast and bladders	1/28/21	Passed; Transferred to Senate, referred to committee
<a href="#">HB42</a>	Clarify AIS management authority laws	1/18/21	Tabled in committee
<a href="#">HB93</a>	Expand materials certified under noxious weed seed free program	2/10/21	Passed; Transferred to Senate, Committee Report--Bill Concurred
<a href="#">HB152</a>	Requiring drain plugs to be disengaged to prevent aquatic invasive species	2/17/21	Bill Passed as Amended
<a href="#">SB40</a>	Revise membership of the Montana Invasive Species Council	2/1/21	Passed; Transmitted to House, First reading
<b>Leg. Concepts</b>	<b>Title</b>	<b>Status Date</b>	<b>Status</b>
<a href="#">LC0024</a>	Create penalties for transportation of aquatic invasive species	12/8/20	Draft on hold
<a href="#">LC0414</a>	Prohibit garbage feeding to swine, other animals	1/16/20	Draft cancelled; probably dead
<a href="#">LC1534</a>	Revise laws related to AIS hydroelectric fee	1/27/21	Draft back for redo
<a href="#">LC1816</a>	Generally revise feral pig notification laws	1/22/21	Draft on hold
<a href="#">LC1817</a>	Joint Resolution urging MT join interstate compact on aquatic invasive species	12/10/20	Draft on hold
<a href="#">LC2661</a>	Revise aquatic invasive species funding	12/15/20	Draft on hold

## Judicial

## Executive

### [U.S. Army Corps explores helping states with aquatic invasive species costs \(2/16/21\)](#)

The U.S. Army Corps of Engineers is seeking comment on its proposal to help states along the upper Missouri River monitor for aquatic invasive species. If approved, the agency could pay half the cost of certain programs within five states, including Montana, Wyoming, North Dakota, South Dakota and Nebraska. The Corps participation in the regional coordination efforts could include everything from expanding the number of locations or hours of operation of AIS inspection stations, to adding canine detection, increasing public awareness, constructing site improvements, as well as augmenting existing monitoring efforts and response planning efforts, according to the agency's [draft environmental assessment](#).

### [Report: EPA Is at Risk of Not Achieving Special Local Needs Program Goals for Pesticides \(2/10/21\)](#)

Without a sufficient management-control system and other improvements, the SLN program will not effectively promote risk reduction and pollution prevention.

### [Biden environmental challenge: Filling vacant scientist jobs \(1/30/21\)](#)

Polluting factories go uninspected by the U.S. Environmental Protection Agency. Leadership positions sit vacant at the U.S. Geological Survey's climate science centers. And U.S. Department of Agriculture research into environmental issues important to farmers is unfinished. The ranks of scientists who carry out environmental research, enforcement and other jobs fell in several agencies — sharply in some — under former President Donald Trump, federal data shows. Veteran staffers say many retired, quit or moved to other agencies amid pressure from an administration they regarded as hostile to science and beholden to industry.

## Congressional

### [Rubio, Scott, Mast, Soto Reintroduce Bill to Address Harmful Algal Blooms in South Florida \(1/27/21\)](#)

U.S. Senators Marco Rubio (R-FL) and Rick Scott (R-FL) and U.S. Representatives Brian Mast (R-FL) and Darren Soto (D-FL) reintroduced the *South Florida Clean Coastal Waters Act* [[S.66](#)] legislation that would direct the Interagency Task Force on Harmful Algal Blooms (HABs) to assess the causes and consequences of HABs in Lake Okeechobee and around Florida's southern coastlines identify needed resources, and develop a plan of action to address these challenges. Rubio [first introduced](#) this legislation in August 2018. The legislation passed the House of Representatives in the 116<sup>th</sup> Congress.

### [Sen. Cruz Introduces Bills to Protect Wildlife Conservation and Texas' Water Supply \(2/9/21\)](#)

U.S. Sen. Ted Cruz (R-Texas) issued the following statement upon introducing the Public Water Supply Invasive Species Compliance Act [[H.R. 931](#)] and the Saving America's Vulnerable and Endangered Species Act (SAVES Act) [[S. 276](#)] this week: "These two bills will greatly benefit Texas' water supply and improve conservation initiatives for non-native wildlife. The Public Water Supply Invasive Species Compliance Act will ensure the steady flow of interstate water

transfers without interference from Washington bureaucrats. The Saving America's Vulnerable and Endangered Species Act will make it easier for ranchers and wildlife sanctuaries to repopulate non-native species without being stifled by bureaucratic red tape. I am proud to introduce legislation to help empower Texans to conserve wildlife and protect future water supply, and I hope to see both bills pass swiftly through the Senate."

#### [Stabenow joins Environment and Public Works Committee \(2/3/21\)](#)

"The committee oversees the Army Corps of Engineers and has a key role in addressing the threat of Asian carp, dredging and water infrastructure. Additionally, the committee will help shape the future of electric vehicles as it oversees the infrastructure needed to modernize our transportation system. These are all critical priorities for Michigan, and I look forward to hitting the ground running on this important work."

#### [Congress Moves to Invest in Estuaries \(2/1/21\)](#)

Congress reaffirmed its support for and strong commitment to the National Estuary Program, a time-tested, non-regulatory program that enables communities to restore and protect the bays and estuaries they call home. Puget Sound is one of 28 "estuaries of national significance" along every coast that will benefit directly from legislation approved by Congress. The legislation had unanimous, bipartisan support from Washington's Congressional delegation: Senators Cantwell and Murray, and Representatives DelBene, Heck, Herrera Beutler, Jayapal, Kilmer, Larsen, Newhouse, McMorris Rodgers, Schrier, and Smith. The Protect and Restore America's Estuaries Act, with strong bipartisan support and unanimous approval from the Senate, was signed into law on January 13, 2021. The Act reaffirms support for the work of the National Estuary Program, and nearly doubles the annual funding limit to \$50 million. Under the new law, each NEP could receive as much as \$1 million each year.

<p><b>An AIS federal legislative table is posted on the web on the <a href="http://www.westernais.org">www.westernais.org</a> website. Go to <a href="https://www.westernais.org/regulations">https://www.westernais.org/regulations</a> and scroll all the way to the bottom</b></p>
---

## **Appropriations**

#### [Hoyer: 'Bipartisan' earmarks comeback in the offing \(2/16/21\)](#)

House Majority Leader Steny Hoyer privately told Democrats on Tuesday that earmarks will be revived this Congress and that he can "guarantee" the effort "will be bipartisan," according to two people on the call.

## TRAININGS, WEBINARS, CONFERENCES AND MEETINGS

---

### Archived Materials

The recording of January's Invasive Mussel Collaborative webinar, Zebra and Quagga Mussel Impacts on Native Mussels, is now available here:

<https://invasivemusselcollaborative.net/event/webinar-zebra-and-quagga-mussel-impacts-on-native-mussels/>

Collaborative Conservation and Adaptation Strategy Toolbox (CCAST) Non-Native Aquatic Species Webinar Series: Bullfrog Eradication at a Landscape Scale in Yosemite National Park Thursday, Jan 28th, 2021 Recordings can be found here:

<https://www.youtube.com/channel/UCLo4sexIRhYxsd9BRTpZ1Ig>

### Events: Webinars, Trainings, Conferences and Meetings

#### **Watercraft Inspection Training**

For more information go to <https://www.westernais.org/> (under the "Training" tab) or contact Quagga D @ (702)236-3814 or [quaggadee@cox.net](mailto:quaggadee@cox.net)

---

*Because of continued concerns due to COVID-19 upcoming meetings and events listed below may be postponed, cancelled or converted to teleconferencing events. Please check directly with the organizers of these events for the most up-to-date information. Stay at home if you can, wear a mask, and help flatten the curve.*

---

### **2021**

#### **February**

#### Columbia Gorge 10th Annual Invasive Species and Exotic Pest Workshop!

Co-hosted with the United States Department of Agriculture's Animal and Plant Health Inspection Service, the Washington Invasive Species Council, and Washington State University Extension, the Columbia Gorge CWMA is excited to announce that our annual invasive species symposium is scheduled for February 25th, 2021 as a webinar.

#### National Invasive Species Awareness Week

February 22-28, 2021

[Return to top](#)

*NISA Webinar Series*  
*All Webinars begin at 1pm central.*

Monday, February 22nd: [Invasive Species Management Priorities and Opportunities for the Biden-Harris Administration and Members of the 117th Congress](#)

Tuesday, February 23rd: [U.S. Federal Agency Updates](#)

Wednesday, February 24th: [Aquatic Nuisance Species Priorities for Prevention and Management](#)

Thursday, February 25th: [Science, Policy, and Solutions for Invasive Species](#)

Friday, February 26th: [Show Me the Money!](#)

**National Invasive Species Week: [Forest Service SCIENCEx webinars!](#)**

Daily webinars presented by Forest Service scientists and experts will showcase research and best practices for invasive species management across the country.

The Wildlife Society will allow a maximum of 5 Continuing Education Units (CEUs) in Category I of the Certified Wildlife Biologist® Renewal/Professional Development Certificate Program for participation in the SCIENCE x Invasive Species webinars (1 CEU for each webinar).

*\*Webinars are open to all audiences. The Adobe Connect room is limited to 500 participants, so join early.\**

**When:** February 22-26, 2021 - 12:30-1:30 Pacific / 1:30-2:30 Mountain / 2:30-3:30 Central / 3:30-4:30 Eastern

**Where:** [Adobe Connect link.](#)

**Schedule:**

FEBRUARY 22: SCIENCE x Invasive Tree Pests and Pathogens

- *Threats, Impacts, and Management of Invasive Species With Highlights on Developing an Integrated Management Program for Emerald Ash Borer*, presented by [Therese Poland](#)
- *What is a Hemlock woolly adelgid, and who is eating them?* presented by [Nathan Havill](#)
- *Forest Health Monitoring for Pests and Pathogens of Trees*, presented by [Ryan Blaedow](#)

FEBRUARY 23: SCIENCE x Invasive Tree Diseases

- *White pine blister rust in a changing climate: investigating complex interactions to develop strategies to restore and sustain mountain-top ecosystems*, presented by [Anna Schoettle](#)
  - *Patterns and Impacts of Rapid Ohia Death in Hawaii's Native Forests: Science-Based Management Approaches*, presented by [Flint Hughes](#)
- *Thirty Years of Sudden Oak Death: The Consequences of a Pathogen Invasion*, presented by [Susan Frankel](#)

FEBRUARY 24: SCIENCE x Invasive Aquatics

- *Biosecurity Priorities to Forestall Amphibian Chytrid Transmission*, presented by [Deanna 'Dede' Olson](#)
- *Detecting Aquatic Invaders with eDNA: Challenges and Opportunities*, presented by [Brooke Penaluna](#)
- *Recognized and Unrecognized Effects of Invasive Bivalves on Native Freshwater Mussels*, presented by [Wendell Haag](#)

FEBRUARY 25: SCIENCE x Invasive Animals & Animal Pathogens

- *A One Health (Ecosystems Health) Approach to Managing Invasive Animals and Animal Pathogens*, presented by [Patrice 'Patty' Klein](#)
- *Forest Management in the Era of White-nose Syndrome*, presented by [Sybill Amelon](#)
- *Barred Owl Range Expansion in western North America: Ecological Impacts and Conservation Lessons*, presented by [John Keane](#)

FEBRUARY 26: SCIENCE x Invasive Plants

- *Cheatgrass Impacts and Management Options in Western U.S. Ecosystems*, presented by [Ali Urza](#) and [Brice Hanberry](#)
  - *Impacts of Invasive Cogongrass on Private and Public land: Prevention and Control Strategies*, presented by [Rima Lucardi](#)
- *Ventenata Invasion in the Western U.S.: Using Remote Sensing & Model Output to Understand Invasion Risk*, presented by [Becky K. Kerns](#)

**Washington Invasive Species Council Virtual Invasive Species Week Webinars and Events**

- February 22–[Feral Swine Identification, Planning, and Response](#)
- February 23–[Spotted Lanternfly Identification and Risk to Agriculture](#)
- February 24–[Aquatic Invasive Species: Statewide Prevention, Monitoring, and Management Overview](#)
- February 25–[10<sup>th</sup> Annual Columbia River Gorge Invasive Species & Exotic Pest Workshop](#)
- February 26–[Asian Giant Hornet Identification, Risk, and Response](#)

The Oregon Invasive Species Council meeting has been postponed to February 24, 2021 at 1:00 pm.

**March**

[Ontario Invasive Species Forum](#) March 1 – 4, 2020; Virtual Meeting

[2021 Washington Botanical Symposium \(online\)](#)

Thursday, March 4, 2021

9:00 am – 3:30pm

Co-hosted by University of Washington Botanic Gardens and the University of Washington Herbarium, Burke Museum

Program information available at: <http://bit.ly/wabotanicalsymposium>  
or <https://botanicgardens.uw.edu/education/adults/conferences-symposia/wa-botanical-symposium/>

### [DNAQUA International Conference 9-11 March 2021 / 100% ONLINE / Free Attendance !!](#)

First international conference on the use of DNA for water biomonitoring

Pressures on aquatic ecosystems are increasing due to population growth, pollution and climate change. To safeguard aquatic biodiversity and the ecosystem services they provide, national and international legal frameworks have put the focus on this problem. Therefore, there is a need to systematically assess and monitor the quality of aquatic ecosystems.

With more than 400 participants from 49 countries, DNAqua-Net COST Action (CA15219) explores the potential of novel environmental DNA-based techniques for aquatic ecosystem monitoring and develops good practice solutions for their application in biomonitoring programmes.

This first DNAQUA International Conference provides the opportunity to scientists and stakeholders to present and discuss latest research outputs on DNA-based monitoring from DNAqua-Net and beyond. While methods are leaving the labs where they have been developed, and being tested in real life, it is now time to deepen the dialogue between academia, industry and stakeholders from countries all around the world to find solutions to implement new methods in a standardized way to improve environmental monitoring world-wide.

### COLLABORATIVE CONSERVATION AND ADAPTATION STRATEGY TOOLBOX

Non-Native Aquatic Species Webinar Series

“Bullfrog Control at the Landscape Scale in Arizona”

Thursday, March 11th, 2021 12 PM (MST)

Presenter: David Hall, University of Arizona

American bullfrogs, native to eastern North America, were introduced to waterways globally, and by the early 1900s established populations in the southwestern U.S. Bullfrogs were introduced into stock tanks, and readily dispersed and colonized the limited aquatic systems found in southern Arizona, including slow moving streams and creeks, and other aquatic systems with suitable habitat. Bullfrogs commonly outcompete and predate on native amphibians like the Chiricahua leopard frog, listed as federally threatened under the Endangered Species Act. This webinar will detail how a collaborative team has implemented bullfrog removal at a landscape-level across southern Arizona to increase recovery opportunities for Chiricahua leopard frogs. Components of the project include bullfrog distribution and abundance assessments, systematic eradication from prioritized sites, and establishment of buffer zones to prevent re-invasion.

Join us on Zoom: <https://arizona.zoom.us/j/84782595120>

### [2021 10th International IPM Symposium](#)

Date: ~~Mar 15, 2021 to Mar 18, 2021~~

Postponed to: **February 28 - March 3, 2022**

[Non-native Invasive Earthworms 101: From the Nightcrawler to the Jumping Worm](#)

March 17, 1 p.m. CT

Presented by: Ryan Hueffmeier, Director of the Boulder Lake ELC at the University of Minnesota

April

Save the Date! April 6-8, 2021

11th Annual Northwest Climate Conference [Virtual]

<https://www.nwclimateconference.org>

The Washington Invasive Species Council is a proud sponsor of the conference and anticipates that invasive species will be on the program. Hope to “see” you there.

The next meeting of the [Pacific Ballast Water Group \(PBWG\)](#) will be April 6-7, 2021.

The WRP will be holding its Mid-Year Meeting Wednesday, April 7th, 11 am-3 pm mountain time. This meeting will be hosted through GoToWebinar and will include two hours of presentations along with the standard WRP business meeting session. [You can register for the event here.](#)

[2021 Second International Congress of Biological Control \(ICBC2\)](#)

Date: Apr 26, 2021 to Apr 30, 2021; Sponsor: International Organisation for Biological Control (IOBC) and CAB International (CABI); Venue: Congress Center Davos; Location: Davos, Switzerland; Email: [info@iobc-icbc.com](mailto:info@iobc-icbc.com)

May

[International Conference on Marine Bioinvasions XI](#) Annapolis, Maryland, USA, May 10-14, 2021. The Society for the Study of Marine Bioinvasions (SSMB) is excited to invite you to attend the XIth International Conference on Marine Bioinvasions in Annapolis, Maryland, USA. The meeting dates will be May 10-14th, 2021 (including associated activities), and the conference will be hosted by the Smithsonian Environmental Research Center’s Marine Invasions Lab. We are actively working with the SSMB Scientific Steering Committee to create a stimulating and productive program. Information on meeting themes, guest speakers, special events, student travel funds, and local attractions will be posted on our website over the coming months: <http://www.marinebioinvasions.info>

The North American Invasive Species Forum, currently scheduled from May 18 - 20, 2021 in Montreal, is an international event encompassing the interests of professionals and organizations involved in invasive species management, research, and regulation across North America. The Forum will bring together the international invasive species community and will highlight new research, emerging issues, success stories and prevention and response initiatives from across Canada, Mexico and the U.S.. The forum will also build on the previous North American Invasive Species Forum held in 2017. The [Canadian Council on Invasive Species](#) is hosting this

Forum with the support of, and guidance from, an international steering committee representing the U.S., Canada, and Mexico.

The [International Urban Wildlife Conference](#) will be held VIRTUALLY from May 25-27, 2021. This conference will create an interactive forum for urban planners, researchers, city and county staff, students, educators, biologists, and ecologists of all backgrounds from across the globe to highlight research, case studies, policy initiatives, thought exercises, and discussions related to wildlife and natural resources in urban environments. Please keep an eye on our social media for more conference updates. Abstracts for oral presentations, posters, organized symposia and workshops are due by January 22, 2021.

### August

#### [2021 Pacific NorthWest Economic Region 30th Annual Summit](#)

Date: Aug 15, 2021 to Aug 19, 2021

Venue: Big Sky Resort

Location: Big Sky, Montana

Notes: Rescheduled from 2020 to 2021.

### October

[World Fisheries Congress](#) 11-15 October, 2021 Adelaide, Australia

### November

AFS has changed the dates for the 151st [AFS Annual Meeting](#) in Baltimore to November 6-10, 2021, from the original date of August 8-12. Please note that this is a Saturday to Wednesday meeting schedule rather than the traditional Sunday to Thursday. This change is being made with the desire to safely host an in-person meeting and to celebrate our 150th anniversary, albeit one year late. The meeting will also include remote participation options and AFS will transition to a full virtual option should the COVID-19 situation make that the appropriate and safe choice. New deadlines will be provided soon for symposium and abstract submissions. Please check the meeting website for updates.

#### [Innovations in Invasive Species Management Conference and Training](#)

We welcome everyone back to the Gaylord Opryland Resort and Convention Center in Nashville, TN for the 4th annual 2021 Innovations in Invasive Species Conference.

When: November 29th through December 2nd, 2021

---

**TO UNSUBSCRIBE/SUBSCRIBE** to the *AIS NEWS* email [sphillips@psmfc.org](mailto:sphillips@psmfc.org). *AIS NEWS* was compiled by Robyn Draheim and Stephen Phillips. Past issues of *AIS NEWS* can be found @ <http://www.westernais.org/> under the “News” tab.