



AQUATIC INVASIVE SPECIES NEWS

10/29/2020

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Penn State Arboretum

USFWS will be holding a Halloween-themed invasive species outreach broadcast via Facebook Live on **Friday, October 30**, starting at 12:00 PM (PDT). You can join at the scheduled time via our USFWS Pacific Region Facebook Page:

<https://www.facebook.com/USFWSPacific>

The presentation will focus on “Monster Invaders” of concern in the Pacific Northwest and what everyone can do to help (including an emphasis on public detection/reporting, with Asian Giant Hornet as a timely example).

RECOMMENDED

[Intensifying hurricanes are helping aquatic invasive species spread across the U.S.](#)

More than a hundred species—
including Asian swamp eels and zebra mussels—
hitched a ride on Hurricane Isaias' floodwaters, scientists say.

With record-breaking intensity, the 2020 Atlantic hurricane season has surged past the average 12 named storms per year. When Hurricane Zeta made landfall in Mexico on October 26, it became the 27th named storm of the season and 11th named hurricane.

While hurricanes are notorious for producing tornados and causing widespread destruction, they have another devastating, yet lesser-known effect: Spreading invasive species to new habitats.

When Hurricane Isaias slammed into the Caribbean and eastern U.S. this summer, rising water levels allowed at least 114 non-native aquatic species to ride from one watershed to the next, according to the United States Geological Survey's Nonindigenous Aquatic Species team.

[\[Full article\]](#)

...

PUBLIC COMMENT

[NW RISCC: Invasive Species and Climate Change Survey](#)

The newly formed Northwest Regional Invasive Species and Climate Change Network (NW RISCC) is a community of practice dedicated to helping practitioners address the nexus of climate change and invasive species, including plants, animals, and pathogens. The objective of NW RISCC and of the [survey](#) is to help practitioners within federal, tribal, state, and local agencies and conservation organizations integrate climate change science and adaptation with invasive species prevention, early detection, control, monitoring, and research activities.

The NW RISCC Advisory Team invites you to participate in a [survey](#) about invasive species in a changing climate. We are seeking input from individuals with interest and/or experience in invasive species management and climate change adaptation, such as scientists, resource managers, conservation practitioners, field crew personnel, fire managers, agency leads, agricultural specialists, and more. Your input will be used to help shape the strategic agenda and action plan for the Network, including partnership and funding opportunities.

The [survey](#) should take ~10-15 minutes to complete. Responses will be summarized (without names) and shared with all respondents. **Please complete the survey by November 25.**

[Vessel Incidental Discharge National Standards of Performance](#)

The U.S. Environmental Protection Agency (EPA) is publishing for public comment a proposed rule under the Vessel Incidental Discharge Act that would establish national standards of performance for marine pollution control devices for discharges incidental to the normal operation of primarily non-military and non-recreational vessels 79 feet in length and above into the waters of the United States or the waters of the contiguous zone. The proposed national standards of performance were developed in coordination with the U.S. Coast Guard (USCG) and in consultation with interested Governors. The proposed standards, once finalized and implemented through corresponding USCG regulations addressing implementation, compliance, and enforcement, would reduce the discharge of pollutants from vessels and streamline the current patchwork of federal, state, and local vessel discharge requirements. Additionally, EPA is proposing procedures for states to follow if they choose to petition EPA to issue an emergency order, to review any standard of performance, regulation, or policy, to request additional requirements with respect to discharges in the Great Lakes, or to apply to EPA to prohibit one or more types of vessel discharges proposed for regulation in this rulemaking into specified waters to provide greater environmental protection.

Comments must be received on or before November 25, 2020. Under the Paperwork Reduction Act (PRA), comments on the information collection provisions are best assured of consideration if the Office of Management and Budget (OMB) receives a copy of your comments on or before November 25, 2020.

EPA will be hosting a series of virtual public meetings in late October/early November on the proposed national standards of performance. Information on those meetings will be posted soon on EPA's VIDA webpages.

On Nov. 4 (at 1100 CST) Jack Faulk of EPA will provide an update on its Notice of Proposed Rulemaking, a preliminary copy of which was posted for public information.

[More information here.](#) and *Federal Register* Notice [HERE](#)

[EPA Administrator Wheeler Announces Proposed Action to Cancel Irgarol Uses \(10/23/20\)](#)

At an event today in Ruskin, Fla., U.S. Environmental Protection Agency (EPA) Administrator Andrew Wheeler announced that the agency is proposing to cancel certain uses of irgarol in order to better protect coral and other aquatic life. Irgarol is most often used in antifoulant paint that is applied to protect boat hulls.

“EPA is proposing to cancel the use of the biocide irgarol to better protect coral and other aquatic life,” said EPA Administrator Andrew Wheeler. “Protecting the health of the plants and animals within our oceans, lake and rivers is a priority for EPA. There are less environmentally

persistent alternatives to using irgarol for the boating industry, and our proposed action will better protect coral from the harmful effects of the compound.”

After completing an [ecological risk assessment](#), EPA determined that irgarol, which is used in antifoulant paint and as a materials preservative in algicidal paints, is toxic to both freshwater and marine plants, including causing the bleaching of coral. To address these issues, EPA is proposing to cancel all uses of irgarol as an antifoulant paint through the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) registration review process. **The agency will accept public comments on this proposed interim decision (PID) until December 22, 2020**, in docket EPA-HQ-OPP-2010-0003 at <https://beta.regulations.gov/search?filter=EPA-HQ-OPP-2010-0003%20>

[Government of Canada Launches Public Engagement on First-Ever Aquaculture Act](#)

From: Fisheries and Oceans Canada

August 17, 2020

Ottawa, ON - Sustainable aquaculture is a cornerstone of Canada’s fish and seafood sector, playing an important role in the country’s food security and helping drive economic growth, particularly in rural, coastal, and Indigenous communities.

Today, the Minister of Fisheries, Oceans, and the Canadian Coast Guard, the Honourable Bernadette Jordan, launched the next phase of the Government’s public engagement on the first-ever Aquaculture Act. The proposed Act will provide more clarity and certainty as this industry continues to develop across Canada, while respecting federal, provincial, and territorial jurisdictions.

A discussion paper providing background on aquaculture in Canada, rationale for the proposed legislation and an overview of the elements proposed for the new Act, is now available online with key questions to guide feedback to the Government on this important initiative. The public is invited to visit <https://dfo-mpo.gc.ca/aquaculture/act-loi/consultations-eng.html> and will have **until January 15, 2021** to participate in this round of consultation.

[\[Texas\] Changes proposed to Texas Exotic Aquatic Species regulations \(8/28/20\)](#)

The Texas Parks and Wildlife Department is proposing changes to regulations regarding harmful or potentially harmful fish, shellfish and aquatic plants. The proposed changes significantly reorganize the existing rules to enhance accessibility, meet the changing needs of the regulated community, and address current and potential future threats posed by these exotic species. The proposed rules will be published in the Texas Register no later than Friday, Oct. 2. At that time, comments on the changes can be provided on the [TPWD public comment page](#) **until Monday, Nov. 9.**

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USACE: Proposal To Reissue and Modify Nationwide Permits

Action

Notice of proposed rulemaking

Summary

Nationwide Permits (NWP) authorize certain activities under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899. The U.S. Army Corps of Engineers (Corps) is proposing to reissue its existing NWPs and associated general conditions and definitions, with some modifications. We are also proposing to issue five new NWPs. Two of those proposed new NWPs would authorize certain categories of mariculture activities (i.e., seaweed and finfish mariculture) that are not authorized by NWP 48. We are proposing to divide the current NWP that authorizes utility line activities (NWP 12) into three separate NWPs that address the differences in how different linear projects are constructed, the substances they convey, and the different standards and best management practices that help ensure those NWPs authorize only those activities that have no more than minimal adverse environmental effects. Specifically, we are proposing to modify the current utility line NWP 12 to authorize only oil and natural gas pipeline activities. Two proposed new NWPs would authorize activities associated with the construction, maintenance, repair, and removal of electric utility lines/telecommunication lines and utility lines that convey water, sewage, and other substances. The fifth proposed new NWP would authorize discharges of dredged or fill material into jurisdictional waters for the construction, expansion, and maintenance of water reuse and reclamation facilities. We are proposing these modifications to simplify and clarify the NWPs, reduce burdens on the regulated public, and continue to comply with the statutory requirement that these NWPs authorize only activities with no more than minimal individual and cumulative adverse environmental effects. The Corps is requesting comment on all aspects of these proposed nationwide permits.

Dates

Submit comments on or before November 16, 2020.

Addresses

You may submit comments, identified by docket number COE-2020-0002 and/or RIN 0710-AA84, by any of the following methods:

Federal Rulemaking Portal: <http://www.regulations.gov>

Follow the instructions for submitting comments.

Email: nationwidepermits2020@usace.army.mil. Include the docket number, COE-2020-0002, in the subject line of the message.

Mail: U.S. Army Corps of Engineers, Attn: CECW-CO-R, 441 G Street NW, Washington, DC 20314-1000.

NOAA: Announcement of Request of Information for Aquaculture Opportunity Areas

NOAA is seeking public input on creation of Aquaculture Opportunity Areas in federal waters of the Gulf of Mexico and waters off of southern California via a 60-day public comment period which will be **open through 12-22-2020**. The public and our stakeholders are encouraged to provide comments for AOA creation in these areas as well as the location of future AOAs. Establishing these Aquaculture Opportunity Areas are part of NOAA's responsibility under the May 2020 Executive Order on Promoting American Seafood Competitiveness and Economic Growth.

The public input provided in response to this Request for Information will inform NOAA as it works with federal agencies, appropriate Regional Fishery Management Councils, and in coordination with appropriate state and tribal governments to identify geographic areas that will be considered in more depth through the Programmatic Environmental Impact Statement. To identify each AOA, NOAA will use a combination of powerful data-driven siting analysis using hundreds of types of data on ocean uses and this public input. The synthesis of these two essential elements will highlight space that is environmentally, socially, and economically appropriate for commercial aquaculture.

The AOA announcement, supporting materials, and links to the RFI are available on the NOAA Fisheries site at www.fisheries.noaa.gov/aquaculture-opportunity-areas

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>

DREISSENIDS

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 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...



WSDA

[WSDA Entomologists Eradicate First Asian Giant Hornet Nest \(10/24/20\)](#)

Washington State Department of Agriculture (WSDA) entomologists successfully eradicated an Asian giant hornet nest by vacuuming the hornets out of the nest Saturday, Oct. 24, just two days after finding the nest in a tree on private property in Blaine, Wash. In all, the entomologists with WSDA's Pest Program removed 98 worker hornets. During the early morning extraction, 85 hornets were vacuumed out of the nest and collected another 13 live hornets were collected with a net while observing the nest on Friday.

Related: [Asian giant hornet could spread quickly in B.C., says study \(10/18/20\)](#)

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

[\[Texas\] Austin Water hits major milestone in fight against zebra mussels \(10/26/20\)](#)

With the water level at Lake Travis low, it is easy to see evidence of the zebra mussel infestation. But what you won't find in your water is the smell of the infestation. Some may remember what flowed into homes back in February of 2019. "You know a few years ago, we didn't worry about zebra mussels, and then here they are and we have to make these investments," said Austin Water Director Greg Meszaros. The investments, according to Meszaros, have produced an important milestone. "We no longer have zebra mussels in our raw water piping. So, last time we had a zebra mussel die off and that created some of the taste and odor issues for some of our customers, and by getting them out of our raw water pipe we eliminate that risk," said Meszaros.

[Richland Chambers Reservoir Elevated to “Infested” with Invasive Zebra Mussels \(10/20/20\)](#)

The Texas Parks and Wildlife Department (TPWD) has upgraded Richland Chambers Reservoir southeast of Dallas to fully “infested” with invasive zebra mussels. Fully infested status signifies that there is an established, reproducing population in the lake. The status change is a result of recent sampling efforts that revealed new evidence of reproducing and growing populations of zebra mussels in the lake.

[Scientists learn how other invaders keep foreign mussels in Lake Michigan in check \(10/16/20\)](#)

Nathan Lucas, the aquatic invasive species coordinator at the Michigan Department of Natural Resources Fisheries Division, said it’s essential to communicate the threat of invasive species to the public. He coordinates response efforts that deal with existing species, identify next invaders and prevent them from being introduced into the Great Lakes.

Robertson, J.J., Swannack, T.M., McGarrity, M. et al. Zebra mussel invasion of Texas lakes: estimating dispersal potential via boats. *Biol Invasions* 22, 3425–3455 (2020).

<https://doi.org/10.1007/s10530-020-02333-2> [\$\$]

BOAT INSPECTION/DECON/TECH NEWS

[\[Idaho\] AG Today: Zebra mussels \(10/26/20\)](#)

Live zebra mussels were identified on a boat at the I-90 West “Cedars” watercraft inspection station east of Coeur d’Alene on Monday. The station, one of 20 operated statewide by the Idaho State Department of Agriculture (ISDA), is operated cooperatively with the Kootenai-Shoshone Soil Water Conservation District. The fouled boat has been put under a regulatory hold order by the ISDA and is prohibited from launching into Lake Coeur d’Alene until it completes a full decontamination protocol.

The boat, a large commercially hauled sailboat that originated in Lake Erie, Ohio, was pulled from the water there on October 2, 2020, before leaving for Coeur d’Alene. The boat was inspected at stations operated by the Montana Department of Fish, Wildlife, and Parks, which informed Idaho of the boat, its condition, and the final destination in Coeur d’Alene.

[\[Colorado\] Ruedi Reservoir inspectors reel in highest number of mussel-contaminated watercraft in Colorado this season \(10/23/20\)](#)

Inspectors in Colorado this season intercepted a record number of watercrafts showing signs of invasive mussel infestations as reservoirs across the state saw surging numbers of boaters. Ruedi Reservoir, near Basalt, recorded the state’s highest number of intercepted boats carrying mussels. Officials said that is probably due to the reservoir’s relative proximity to Utah’s Lake Powell, which has been dealing with a mussel infestation for years.

[\[Colorado\] Lake Pueblo State Park winter hours implemented \(10/18/20\)](#)

Lake Pueblo State Park has implemented winter hours for its boat ramps and the decontamination stations. The decontamination stations guard against the invasion of non-native zebra and quagga mussels which are also known as Aquatic Nuisance Species, ANS...Colorado

has implemented an aggressive watercraft inspection and decontamination prevention system to stop ANS introduction, especially zebra and quagga mussels, by inspecting watercrafts before they enter state waters, decontaminating those with ANS attached, educating boat operators and ensuring users clean, drain, and dry their watercraft.

BALLAST WATER/BIOFOULING

[IMO revised G8 compliance deadline day \(10/28/20\)](#)

On 13 April 2018, the BWMS code (MEPC.300(72)) was adopted, turning the guidelines into a mandatory code with type-approval required for ballast water treatment systems installed on new buildings on or after 28 October 2020. Systems conforming to MEPC.174(58) can no longer be installed, only those compliant with the BWMS Code. Therefore, time has almost run out for ballast water treatment systems seeking revised G8 type-approval. Which ballast water treatment systems are type-approved to revised G8? This is actually quite a hard question to answer. There is no readily accessible central database of ballast water systems showing those with IMO revised G8 type-approval and the legacy of the cyber-attack on IMO has left some pages unobtainable.

[New ballast water compliance requirements enter force this week \(10/26/20\)](#)

From Wednesday of this week, ballast water management systems will have to meet IMO Ballast Water Convention type approval requirements, rather than the existing G8 and revised G8 guidelines, as well as US Coast Guard type approval regulations.

[Marine Safety Center issues Ballast Water Management System Type Approval Certificate to Panasonic Environmental Systems & Engineering Co., Ltd. \(10/23/20\)](#)

The Coast Guard Marine Safety Center issued the 37th U.S. Coast Guard Ballast Water Management System Type Approval Certificate to Panasonic Environmental Systems & Engineering Co., Ltd., after a detailed review of the manufacturer's type approval application determined the system met the requirements of 46 CFR 162.060.

[Marine Safety Center issues Ballast Water Management System Type Approval Certificate to Elite Marine Corporation \(10/22/20\)](#)

The Coast Guard Marine Safety Center issued the 36th U.S. Coast Guard Ballast Water Management System Type Approval Certificate to Elite Marine Corporation, after a detailed review of the manufacturer's type approval application determined the system met the requirements of 46 CFR 162.060.

[Marine Safety Center receives new application for Ballast Water Management System type approval \(10/22/20\)](#)

The Coast Guard Marine Safety Center received an application for Ballast Water Management System (BWMS) type approval for the KURITA Ballast Water Management System manufactured by Kurita Water Industries Ltd. MSC will review the application for compliance with U.S. Coast Guard regulations in 46 CFR 162.060. Once it has been determined that the application meets the requirements, the MSC will issue a type approval certificate.

MARINE

[What threat do microplastics, a.k.a. ‘ocean hitchhikers’, pose to aquaculture? \(10/26/20\)](#)

A new [paper](#) published in the journal *Trends in Microbiology* posits that microplastics could also be a vector for pathogens, spreading antimicrobial-resistant genes.

[Yard Fencing Becomes Control for Lionfish Population \(10/16/20\)](#)

According to Steve Gittings, the chief scientist for NOAA National Marine Sanctuaries, lionfish are highly attracted to structures, even if there is no bait. To target this invasive species, scientists are now going to be placing lattice fencing—the kind you use to keep varmint out from under your deck—in the deep ocean. Lattice is inexpensive and easy to retrieve and replace if it breaks. Most importantly, it is irresistible to lionfish.

Goedknecht, M.A., Buschbaum, C., van der Meer, J. et al. Introduced marine ecosystem engineer indirectly affects parasitism in native mussel hosts. *Biol Invasions* 22, 3223–3237 (2020). <https://doi.org/10.1007/s10530-020-02318-1> [\$]

Glon, H., Daly, M., Carlton, J.T. et al. Mediators of invasions in the sea: life history strategies and dispersal vectors facilitating global sea anemone introductions. *Biol Invasions* 22, 3195–3222 (2020). <https://doi.org/10.1007/s10530-020-02321-6> [\$]

Lyons, D.A., Lowen, J.B., Therriault, T.W. et al. Identifying marine invasion hotspots using stacked species distribution models. *Biol Invasions* 22, 3403–3423 (2020). <https://doi.org/10.1007/s10530-020-02332-3> [\$]

AQUACULTURE

[NWAA challenges Patagonia to “Engage with us” to learn about aquaculture \(10/27/2020\)](#)

So perhaps it is not surprising, given its venture into salmon sales, that Patagonia has taken up with an anti-aquaculture NGO, the Wild Fish Conservancy (WFC), to launch one of the most scientifically unfounded and defamatory attacks on aquaculture by a competitor in the wild fish sector via a video <https://www.youtube.com/watch?v=b9H-1X03-V0> disparaging the family-owned and operated company, Cooke—which was recently named by the respected trade group, *SeafoodSource*, as one of the Top 25 Seafood Suppliers in North America for Sustainability & Conservation.

FISH

[New Film Explores National Scope of Asian Carp Threat: National Wildlife Federation's "Against the Current" shows the threat of Asian carp to the Great Lakes and their current impacts in Southern and Midwestern waters.](#)

(Oct. 15, 2020) – A new film released today explores the national scope of the problems caused by invasive Asian carp. The film focuses on the impact Asian carp have on the values and economies they threaten in the Great Lakes and the impacts they're currently having in Southern and Midwestern waters. Furthermore, it highlights what's needed to stop them. Against the Current, released by the National Wildlife Federation Great Lakes Regional Center, features diverse viewpoints representing scientific, tribal, business, tourism, fishing, outdoor recreation, and conservation communities from northern Michigan to Tennessee.

[Great Lakes anglers remain wary of invasion of Asian carp \(10/18/20\)](#)

The Asian carp saga won't go away until Asian carp go away. And lest anyone wonder, the carp — bigheads, silvers and blacks — aren't going away... The concern of conservationists, including many Ohio charter captains and recreational anglers, is that Asian carp will thread their way past vulnerable points to enter the Great Lakes, which could lead to unhappy outcomes to native fish and fishermen.

[Asian carp burgers, tacos available across Illinois; initiative meant to raise awareness of invasive species \(10/17/20\)](#)

Josina Morita, a metropolitan water reclamation district commissioner and Great Lakes Commission delegate, ... and the Illinois Department of Natural Resources have teamed up to help rid Illinois waterways of the invasive fish species. Officials plan to pass out 1,000 free Asian carp "treats" for residents to enjoy and to raise awareness of the local crisis, create jobs and protect the environment.

AQUATIC PLANTS

[\[Texas\] State says hydrilla has returned to Lake Conroe \(10/23/20\)](#)

It's been 10 years since hydrilla was found on Lake Conroe but the Texas Parks and Wildlife Department says the invasive water plant is back. State officials say less than a tenth of an acre of hydrilla was found in the Caney Creek arm of Lake Conroe, which spans over 20,000 acres. The small hydrilla colony was treated with a targeted herbicide.

FRESHWATER

[Invasion Of The Water Body Snatchers: Managing Aquatic Invasive Species \(10/26/20\)](#)

Invasive species can be sneaky, moving like non-native ninjas into an ecosystem and wreaking havoc before anyone notices they're there. This is particularly true of aquatic plants and animals hidden beneath the water's surface. However, this threat is beginning to get the attention it deserves. Effective methods for managing invaders from the terrestrial world are being applied to aquatic settings, and new technologies are yielding exciting possibilities to deploy. Learning from successes and mistakes of past endeavours is critical to improving the anti-invasive toolkit. To that end, a review published in *Hydrobiologia* chronicles the battles won and lost against freshwater and marine invasive species, considers the effectiveness of various approaches to control or eradicate these pests, and discusses cutting-edge innovations ([Simberloff 2020](#)). From gene-silencing to hunter-killer robots, the road ahead is laden with remarkable new tools to manage and eliminate aquatic invasives, but the risks of such methods will be increasingly important to consider.

[\[California\] New Zealand Mudsnaails Invade the Mad River \(10/24/20\)](#)

New Zealand mudsnails are small — about the size of a peppercorn — but they can be a BIG problem for watersheds where they are found. On this week's EcoNews Report, the Green Gang sits down with Darren Ward, Associate Professor of Fisheries Biology at Humboldt State University, and Jacob Pounds, environmental scientist at the Blue Lake Rancheria, to learn about new infestations in the Mad River and how you can prevent the spread of these snails and other aquatic invaders.

[Entire Lake In Montana May Be Drained To Eradicate Invasive Clams \(10/20/20\)](#)

Montana Fish, Wildlife and Parks is recommending that the 60-acre Lake Elmo in the Billings Heights area be drained next year in order to eradicate invasive clams. "Asian clams were found in Lake Elmo in 2019 by FWP employees training to search lakes for aquatic invasive species," Montana FWP said on Tuesday, Oct. 20. "Subsequent searches of an irrigation storage reservoir and ditches and rivers upstream and downstream from the lake found no other Asian clams, suggesting that they are limited to Lake Elmo. The invasive clams are found nowhere else in Montana."

Tucker, A. J., Chadderton, W. L., Annis, G., Davidson, A. D., Hoffman, J., Bossenbroek, J., ... & LeSage, S. (2020). [A framework for aquatic invasive species surveillance site selection and prioritization in the US waters of the Laurentian Great Lakes](#). *Management of Biological Invasions*, 11(3), 607.

CLIMATE CHANGE

[Human-driven climate change is changing the colors of fall foliage, scientists say \(10/17/20\)](#)

Then, a shipment of imported trees arrived in New York in 1876 carrying a stowaway: *Cryphonectria parasitica*, a fungus native to Asia. Within a few decades, the fungal blight wiped out hundreds of millions of chestnuts. Oaks, hickories and red maples took over, turning yellow

autumn forests more scarlet and bronze. The pattern continues as human activities transform not just the health and composition of forests, but their colors, too. Introduced pests, pathogens and invasive species are causing immediate changes to the fall color palette. And scientists are beginning to see a framework for how climate change may shape the forest colors of the future.

[Warming Poses “Catastrophic” Threat to Endangered Snake River Sockeye, New Research Finds \(9/30/2020\)](#)

Survival is likely to fall sharply as temperatures rise in the coming decades, according to the new [NOAA Fisheries research published this week in PLOS ONE](#). Sockeye salmon are especially vulnerable to temperature changes because they migrate upstream during the hottest part of the summer.

OTHER

[Wildlife Forever Unveils Invasive Species Resource Center \(10/13/20\)](#)

Wildlife Forever and the national Clean Drain Dry Initiative™ have developed a new Invasive Species Resource Center. Invasive species impact property values and are a leading cause of population decline in fish and wildlife. The cost to the United States economy is more than \$120 billion every year. With support for the USDA Forest Service, this clearinghouse will serve as a powerful tool for sharing important invasive species information with researchers, resource managers, policy makers and the public.

States, federal organizations, non-profits, scientists and local lake associations have all independently created important resources about invasive species. Individuals interested in learning more about invasive species can be overwhelmed trying to find the information they need. The Invasive Species Resource Center is a free digital library offering invasive species information organized into three categories: Management, Research, and Outreach & Education.

This one-of-a-kind data center allows individuals to quickly locate and download the information they need. Built with public submissions, the Invasive Species Resource Center will hold information created by state and federal agencies, researchers, non-governmental organizations and local counties and lake associations. Organizations or Individuals interested in sharing their invasive species related resources should visit: www.wildlifeforever.org/resource-center to support this important tool.

JOBS/GRANTS

Olympic National Forest Job Opportunity – Biological Science Technician (Invasive Plants)
Applications Being Accepted October 30 – November 9, 2020

If you are interested in working in the outdoors and contributing to natural resource management in the Pacific Northwest, working for the U.S. Forest Service will challenge you to

manage and care for more than 193 million acres of our nation’s most magnificent lands. The job announcement for the Olympic NF temporary, seasonal weed crew will be posted on [USAjobs](#) October 30th – November 9th, 2020. Although these positions won’t start until May, 2021, this is the only time applications will be accepted, so please forward this to anyone you think might be interested. To apply please visit <https://www.usajobs.gov> Follow “How to Apply” instructions in vacancy announcement very carefully and be sure to submit all required documents listed in the announcement. VERY IMPORTANT: Be sure to select **Olympia, WA** as a duty station when applying for this position.

[John A. Knauss Marine Policy Fellowship Program](#)

The Knauss Fellowship provides a unique educational experience to graduate students who have an interest in ocean, coastal, and Great Lakes resources and in the national policy decisions affecting those resources.

The program, which is sponsored by the NOAA's National Sea Grant College Program, matches highly qualified graduate students with hosts in the legislative and executive branches of government located in the Washington, D.C. area for a one-year paid fellowship.

Past fellows have developed successful careers in a variety of sectors, including government, academia, consulting, private companies, and nonprofit.

To apply please visit the [California Sea Grant website](#) (or your local Sea Grant program if not in California). Deadline: **The deadline for application to California Sea Grant is 5 pm Pacific Standard Time, February 19, 2021**

FEDERAL/STATE/PROVINCIAL LEGISLATION, RULES, ACTIONS

[State/Province](#)

[\[Montana\] FWP AIS prevention team receives 2020 Governors award \(10/21/20\)](#)

The Montana Fish, Wildlife and Parks Aquatic Invasive Species staff was recently acknowledged by Governor Steve Bullock for the work they’ve done this year for once again holding the zebra and quagga mussels out of Montana waterways, especially the headwaters of the Columbia River Basin that includes the Clarkfork, Kootenai and Flathead rivers basins. The CRB is the only major river basin in the United States that isn’t infested with zebra and quagga mussels. For the successful AIS prevention work they were recipients of the 2020 Governors Award.

[\[Wyoming\] Governor’s Invasive Species Initiative Report Released \(10/26/20\)](#)

The Invasive Species Initiative which had been established by Governor Mark Gordon has delivered recommendations in a [final report](#), which could help Wyoming become the leader in combating invasive species.

Judicial

Executive

Congressional

Lame Duck WRDA? (10/28/20)

According to *E&E Daily*:

New Mexico Democratic Sen. Tom Udall is hoping an infrastructure package that's taking shape on Capitol Hill could be a vehicle for addressing critical water issues in the West. Udall yesterday said at the 65th Annual New Mexico Water Conference, which was moved online this year because of the COVID-19 pandemic, that there's been talk of a "compromise water package in the lame duck, and we are working hard to stay in the mix on that one." The senator is hoping that package could include a number of bills he's championed, possibly as part of a sprawling water infrastructure bill that's currently being negotiated among staff in both chambers ([E&E Daily](#), Oct. 13). That bill, expected to move to conference and receive a final vote later this year, would include language from [H.R. 7575](#), or the "Water Resources Development Act of 2020," which would approve billions of dollars for Army Corps of Engineers projects across the nation. A package would also pull from sister legislation, [S. 3591](#), that passed out of the Senate Environment and Public Works Committee with bipartisan support but has yet to get a floor vote. [Source: Reprinted from *E&E Daily*, 10/28/20, with permission from Environment & Energy Publishing, www.eenews.net; 202/628-6500].

For AIS related sections of the [S. 3591](#), see the [May 4 AIS News](#). For AIS related sections of the [H.R. 7575](#), see the [July 20 AIS News](#)

[Democrats push expansion of offshore wind, block offshore drilling with ocean energy bill \(10/20/20\)](#)

A new bill from House Democrats turns to the oceans as a way to fight climate change, proposing to expand offshore wind while barring drilling along America's coasts. The more than 300-page legislation is broadly billed as a "blue carbon" bill — a way to harvest clean energy while protecting fisheries and resources like marshes and wetlands that can store carbon and

protect eroding shorelines. The [Ocean Based Climate Solutions Act](#), introduced Tuesday, comes as the ocean is rapidly warming and acidifying, a result of climate change and absorbing carbon from the atmosphere.

[Chairs Grijalva, Castor Introduce Landmark Oceans Solutions Bill to Tackle Climate Crisis \(10/20/20\)](#)

Washington D.C. – House Natural Resources Committee Chair Raúl M. Grijalva (D-Ariz.) today unveiled his [Ocean-Based Climate Solutions Act](#) at a [virtual press conference](#) with his co-lead, House Select Committee on the Climate Crisis Chair Kathy Castor (D-Fla.), original cosponsors, and a range of bill endorsers. This landmark legislation was introduced by more than a dozen members of the House of Representatives to address the ocean impacts of climate change and reform federal ocean management to better account for climate mitigation.

Invasives are mentioned in the bill:

Title IV—Climate-Ready Fisheries, Efficient Fishery Vessels, And Buy American Seafood

SEC. 402. CAUGHT IN THE USA.

Section 2(c)(1) of the Act of August 11, 1939 (15

U.S.C. 713c-3(c)(1)) is amended to read as follows:

“(1) The Secretary shall make grants from the fund established under subsection (b) to—

“(A) assist persons in carrying out research and development projects addressed to any aspect of United States fisheries, including harvesting, processing, marketing, and associated infrastructures; or

“(B) assist persons to market and promote the consumption of—

“(i) local or domestic fishery products;

“(ii) environmentally- and climate friendly fishery products that minimize by catch and impacts on marine mammals;

“(iii) **invasive species; or**

“(iii) well-managed but less known species.”.

TITLE XIII—Wetlands

SEC. 1301. DEFINITIONS.

(6) RESTORATION.—The term “restoration” means renewing, enhancing, or replacing degraded, damaged, vulnerable, or destroyed wetlands to improve the long-term ecosystem function and resilience through active human intervention and action, such as—

(A) improving hydrological conditions (such as by removing tidal barriers, improving connectivity, or changing water levels);

- (B) altering sediment supply (such as through the beneficial use of dredge material, thin-layer spraying, or reconnecting river sediment);
- (C) changing salinity characteristics;
- (D) improving water quality (such as by reducing excess nutrients, sedimentation, or contaminants);
- (E) planting of native plants, **removal of invasive species**, and other improved management practices;
- (F) controlling erosion of wetland edges; and
- (G) enabling future inland migration as sea levels rise, including through the enhancement of adjacent fresh-water wetlands.

Related: [Bonamici Announces Ocean-Based Climate Solutions Act \(10/20/20\)](#)

[Congressman Panetta urges prioritization of San Justo Reservoir zebra mussel eradication in final FY2021 spending package \(10/26/20\)](#)

Congressman Jimmy Panetta has sent a [letter](#) urging leadership on the House Committee on Appropriations to advocate for the inclusion of the San Justo Reservoir Zebra Mussel Eradication Project in the final FY2021 Energy and Water Development Appropriations bill. Although Congressman Panetta previously secured language for project funding in the House-passed version of that bill, the legislation currently is being negotiated with the Senate according to a recent press release. “The closure of the San Justo Reservoir has had a dramatic, detrimental effect on the community, economy, and environment in San Benito County,” Panetta said. “A healthy water supply and good water quality are essential to economic growth, environmental sustainability, and quality of life for residents in the region and the state of California. I am proud to push for this funding and will continue my work to advance this critical project with federal support.”

Editor’s Note: This letter from Rep. Panetta is most welcome. Mussel eradication in San Justo is WAY overdue!!.

Appropriations

[Hirono, Schatz, Durbin, Klobuchar to Senate Leadership: Support Funding to Detect Invasive Species \(10/20/20\)](#)

Senator Mazie K. Hirono (D-Hawaii), along with her colleagues Senators Brian Schatz (D-Hawaii), Dick Durbin (D-Ill.), and Amy Klobuchar (D-Minn.), [wrote](#) to Senate Majority Leader Mitch McConnell and Senate Minority Leader Chuck Schumer asking them to provide additional funding to protect America’s agriculture and environment through the U.S. Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) Agricultural Quarantine Inspection (AQI) program.

The APHIS AQI program uses 4,800 highly-trained agricultural inspectors to intercept tens of millions of pests and invasive species each year at U.S. ports of entry. Damages caused by invasive species are estimated to cost more than \$100 billion each year. As tourism and travel to Hawaii and elsewhere stalled during the pandemic, the user fees that are typically collected to carry out the program dropped precipitously. As these user fees support a large portion of AQI's budget, additional funding from Congress is needed to allow the program to continue unimpeded through fiscal year 2021. Without support, the potential economic and environmental consequences of allowing this funding to lapse could exceed the \$600 million needed to retain and support these highly-trained agricultural inspectors, especially as travel resumes in Hawaii and across the globe.

[Democrats prepare sweeping budget plans if they win in November \(10/19/20\)](#)

Democrats are eyeing aggressive budget and spending plans if they sweep in November, aiming to deploy every fiscal tool at their disposal to deliver major investments in infrastructure, clean energy, child care and more. Congress is already heading into a big budget year, regardless of the outcome on Election Day. After a decade of enduring strict budget caps and operating under the threat of automatic spending cuts, lawmakers face no overall limits on defense and non-defense discretionary spending for fiscal 2022. Washington will also have to again grapple with raising the debt limit on federal borrowing next summer in order to stave off calamity.

An AIS federal legislative table is posted on the web on the www.westernais.org website. Go to <https://www.westernais.org/regulations> and scroll all the way to the bottom

TRAININGS, WEBINARS, CONFERENCES AND MEETINGS

[Archived Materials](#)

[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

Because of concerns due to the rapid spread of 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.

2020

November

Pacific Northwest Aquatic Monitoring Partnership: Emerging Technologies Information Sessions --- November 2020: eDNA

Tuesday, Nov 3, 1:00-2:30pm Pacific ([learn more](#) | [register for email reminder](#))

- David Pilliod and Matthew Laramie (USGS): eDNA 101: Overview of sampling and extraction methods for environmental DNA

Tuesday, Nov 10, 1:00-2:30pm Pacific ([learn more](#) | [register for email reminder](#))

- Carl Ostberg (USGS): eDNA 201: Using environmental DNA for single species assessments

Tuesday, Nov 17, 1:00-2:30pm Pacific ([learn more](#) | [register for email reminder](#))

- Taylor Wilcox (National Genomics Center for Wildlife and Fish Conservation) : eDNA 301: Multi-species and biodiversity assessments, focusing on laboratory procedures and interpretation of results including challenges and future directions

Dear friends of the [Upper Midwest Invasive Species Conference](#), As we make the pivot to an online event this fall, the UMISC Executive Committee decided to adjust our dates to avoid overlap with other relevant conferences and field season. UMISC Online will be held November 2 - November 6, 2020. We are expanding to a whole week to accommodate the breadth of content the UMISC audience expects with sufficient time for breaks and networking. If polls are open on Election Day, there will be extra free-time that day for voting!

November 3rd: VOTE!

[70th Annual Statewide Weed and Invasive Species Conference Set for Nov. 3-6](#)

The 70th Annual Washington State Weed Conference will be offered online and free to the public, announced the Washington Vegetation Management Association and the Washington Invasive Species Council. With this historic partnership between the association and council, the conference has been increased, with two of the four days focused on invasive species and successful approaches to stopping their spread.

[Biofouling Global Virtual Seminar](#) November 16-17, 2020; Virtual Seminar. The IMO presents the next steps for controlling biofouling and invasive species. Management and prevention of biofouling. Find out what best practice looks like. Discover the latest solutions.

[North American Lake Management Society](#) November 16-20, 2020; Virtual Seminar

[\[Webinar\] NAISMA: November 18 at 1:00 pm CT: The ABCs of Invasive Species Organizations and How They Work Together.](#) Presented by: Chuck Barger. Sometimes invasive species organizations can be as invasive as the organizations that they are trying to protect us from and educate us about. This presentation will give an overview of the major national organizations and what their individual focus is. It will highlight their scope, membership and the taxa that they concentration on.

December

[Mississippi River Basin Panel Meeting](#) December 2, 2020; Virtual Meeting

[Montana Invasive Species Council](#) Meeting, Dec. 2, Helena/Virtual

The next meeting of the 100th Meridian Initiative [Columbia River Basin AIS Team](#) will be virtual: Wednesday, December 2, 12 pm - 3 pm **PDT**; Thursday December 3, 9 am - 3 pm, **PDT**. For further information Contact Leah Elwell @ leah@stopais.org

[ANS Task Force](#) Meeting December 8 - 10, 2020; Virtual Meeting. Contact Susan Pasko at susan_pasko@fws.gov for further information

[Washington Invasive Species Council Meeting](#) December 10th Information Coming Soon.

2021

March

[2021 10th International IPM Symposium](#)

Date: Mar 15, 2021 to Mar 18, 2021

Venue: Sheraton Denver Downtown Hotel

Location: Denver, Colorado

Contact: Michelle Marquart

Phone: 217-244-8174

Email: mmarqua2@illinois.edu

Notes: Theme: Implementing IPM Across Borders and Disciplines

April

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

Date: Apr 26, 2021 to Apr 30, 2021

Sponsor: International Organization for Biological Control (IOBC) and CAB International (CABI)

Venue: Congress Center Davos

Location: Davos, Switzerland

Email: 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.

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

[Innovations in Invasive Species Management Conference and Training](#)-November 29-December 2, 2021, Nashville, TN.

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