



AQUATIC INVASIVE SPECIES NEWS

12/3/21

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SPOTLIGHT:

[Lummi Nation declares disaster as tens of thousands of invasive European green crab found \(11/30/21\)](#)

The Lummi Indian Business Council has passed a resolution declaring a disaster after more than 70,000 European green crab — an invasive species — were captured and removed from the Lummi Sea Pond in recent months.

The Tribe cultivates shellfish and juvenile salmon in the 750-acre sea pond surrounded by the most productive natural shellfish beds on the reservation. The crabs threatens hatchery operations, Tribal shellfish harvests and may have larger impacts if the infestation spreads.

“The appearance of the European green crab is a serious threat to our treaty fishing rights,” Lummi Nation Chairman William Jones Jr. said in a press release.

The council passed the resolution Tuesday, Nov. 23, following a multi-agency effort led by the Lummi Natural Resources Department to remove the aggressive predator that consumes shellfish, destroys salmon habitat and is credited with the rapid decline of Maine’s soft-shell clam industry within the past decade. The resolution establishes a task force that will confront the crisis with a comprehensive response strategy.

[\[cont\]](#)

PUBLIC COMMENT

[Request for Information on NOAA Actions To Advance the Goals and Recommendations in the Report on Conserving and Restoring America The Beautiful, Including Conserving At Least 30 Percent of U.S. Lands and Waters By 2030](#)

On May 6, 2021, the U.S. Departments of the Interior, Agriculture, Commerce, and the White House Council on Environmental Quality released a preliminary report on Conserving and

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Restoring America the Beautiful (Report). The Report recommends a decade-long national initiative to advance locally led conservation and restoration in public, private, and tribal lands and waters toward addressing three threats: Disappearance of nature, climate change, and inequitable access to the outdoors. Guided by eight core principles and six focus areas for early action and progress in the Report, NOAA is seeking public input on how NOAA should, using its existing authorities and associated measures, conserve and restore America's ocean, coasts, and Great Lakes.

Interested persons are invited to submit comments on or before December 28, 2021.

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

[Arizona]

[*Pistia stratiotes* \(water lettuce\)](#) was found in Pima, AZ in Eastern most pond at Sweetwater Wetlands [[USGS NAS](#)]

[Texas]

[*Hydrocleys nymphoides* \(waterpoppy\)](#) was found in a Austin-Travis Lakes drainage in Blunn Creek at Stacy Park, TX. [[USGS NAS](#)]

WATCH LIST

[Canada] DFO wants people to report sightings of European Green Crabs in the Salish Sea. Sightings can be reported to AISPACIFIC@dfo-mpo.gc.ca

[Canada] [What the shell is out there? Columbia Shuswap Invasive Species Society wants help documenting what kinds of shells are out there.](#)

DREISSENID MUSSELS

LISTEN: [New WGA 'Out West' episode analyzes the emergency response to moss balls and the spread of invasive zebra mussels in the West \(11/21\)](#)

[Researchers discover native mussels rebounding in Detroit River \(11/19/21\)](#)

Central Michigan University researchers have discovered unexpected populations of native mussels in the Detroit River, an area that hasn't been searched for the mollusks since 1998. Back then, researchers thought the natives, known as unionids, were fast on the way out — victims of non-native zebra mussels invading from Europe and Asia.

“When we started this project, going two and a half years ago now, all the research said there are no unionids left in Detroit,” said Shay Keretz, a doctoral student in aquatic ecology, who led the study beginning in 2019 to explore the populations of native and invasive mussels species in the Detroit River. “It (was) very likely that zebra mussels just wiped them out. So we were fully expecting to find nothing when we started this project.”

[Wyoming remains free of invasive mussels after challenging year \(11/15/21\)](#)

After a challenging year protecting the state from aquatic invasive species, Wyoming remains free of invasive mussels.

In the 2021 summer season, Wyoming Game and Fish Department's AIS watercraft check stations inspected more than 68,000 boats across the state. Game and Fish personnel saw high numbers of live mussels, decontaminated 924 boats and found live mussels on two during the summer months.

This year marks the highest number of decontaminations ever conducted since the AIS program was established in 2010 by the State Legislature and the first time live mussels were found on boats at Wyoming's check stations.

BOAT INSPECTION/DECON/TECH NEWS

[\[BC\] Okanagan Basin Water Board reveals 17 boats contaminated with invasive mussels were stopped this year \(12/2/21\)](#)

A report to the Okanagan Basin Water Board gives a review of the inspection program, which ran from mid-May to October.

- 244 watercraft coming into B.C. were identified as high-risk for invasive zebra or quagga mussels

- 153 were decontaminated

- 100 were given decontamination orders

- 18 were quarantined to meet the required 30-day drying time

- 17 were confirmed carrying the mussels

[Mobile boat decontamination unit from Lake Tahoe donated to fight invasive species at Lake Sonoma \(11/27/21\)](#)

Lake Tahoe aquatic invasive species (AIS) watercraft inspection agencies recently donated a mobile boat decontamination unit to a nearby program at Lake Sonoma to help stop the spread of invasive species. The donated equipment allows inspectors to apply 140-degree water to boats, trailers, engines, and storage areas to kill any living invasive plant or animal without harming equipment. The Tahoe program no longer needed the mobile unit as they now have permanent equipment at several inspection stations.

[\[Utah\] Over 315K boats inspected for quagga mussels during 2021 boating season. Here's what they found. \(11/16/21\)](#)

Statewide, Aquatic Invasive Species technicians with the DWR, Utah State Parks, Arizona Game and Fish Department and the National Park Service inspected 315,539 boats and performed 7,340 decontaminations since Jan. 1, according to a press release issued by the DWR last week. Of those total numbers, 85,113 of the boat inspections and 2,321 of the decontaminations took place at stations in the Lake Powell area. Lake Powell is currently the only Utah waterbody infested with invasive quagga mussels.

Last year, there were more boaters out on Utah's lakes and reservoirs, which resulted in 447,909 inspections statewide and the decontamination of 11,091 boats.

[\[Idaho\] Record number of mussel-fouled boats caught at inspection stations in 2021 \(11/16/21\)](#)

Idaho boat inspection stations caught a record number of watercraft fouled with invasive mussels so far in 2021, but state officials report that its waters remain free of the aquatic invaders.

All though inspections can still take place through December, most boaters are now winterizing and putting boats into storage. Nic Zurfluh, of the invasive species office of Idaho State Department of Agriculture said 2021 was not quite as busy as 2020, but more zebra or quagga mussel-fouled boats were discovered at inspection stations coming into the state this year.

BALLAST WATER/BIOFOULING

[OP-ED: Knowledge pays when selecting and operating BWMS \(11/18/21\)](#)

Upfront costs and operational expenses are important considerations for all ship owners and operators purchasing ballast water management systems (BWMS).

This means it's critical to take every variable that might influence CAPAX and OPEX costs into account before purchasing a new system. As ballast water regulations mature, so too has research into the true costs of compliance with ballast water regulations.

[U.S. EPA fines two commercial ships over Vessel General Permit violations](#)

Today, the U.S. Environmental Protection Agency (EPA) has assessed penalties totaling \$81,474 against two commercial ships over inspection, monitoring, and reporting violations in California and Louisiana. The MSC Aurora container ship and the Western Durban bulk carrier both violated EPA's Vessel General Permit (VGP) issued under the Clean Water Act (CWA).

"Vessels that do not comply with their CWA permits can have significant environmental impacts to our waterways, including the introduction of invasive species," said Amy Miller, EPA's Enforcement and Compliance Assurance Division Director for the country's Pacific Southwest region. "Failure to comply with the Vessel General Permit requirements can result in significant penalties."

MARINE

[\[Oregon\] Invasive Green Crab Numbers Continue To Rise In Coos Bay \(11/17/21\)](#)

Growing European green crab populations throughout Coos Bay are likely to impact Dungeness crabs and coastal habitat, according to a [new report](#) from researchers at the South Slough National Estuarine Research Reserve. A release from the Oregon Department of State Lands said the report, which is part of an ongoing study by scientists at the South Slough Reserve and Oregon State University, found numbers of invasive green crabs continue to climb. Between June and September of 2021, researchers trapped and sampled crab populations daily at 13 sites around Coos Bay. On average, 73.3 percent of crab species trapped each day were green crabs.

Related: [Experts on southern Oregon coast advise eating 1 crab species to save another \(11/17/21\)](#)

[Emergence of a neopelagic community through the establishment of coastal species on the high seas \(12/2/21\)](#)

Discoveries of persistent coastal species in the open ocean shift our understanding of biogeographic barriers. Floating plastic debris from pollution now supports a novel sea surface community composed of coastal and oceanic species at sea that might portend significant ecological shifts in the marine environment.

Related: NBC: [On the Great Pacific Garbage Patch, scientists find a surprise: Coastal life \(12/3/21\)](#)

AQUACULTURE

[Most Canadian aquaculture fisheries meet new U.S. standard for wildlife protection \(12/1/21\)](#)

Most Canadian aquaculture operations have been exempted from a new U.S. rule requiring that seafood imports prove they do not harm whales, seals and other marine mammals. However, most of Canada's wild-capture fisheries will have to demonstrate they meet the new American standards.

[DFO, salmon farmers dismantle “lies” about sea lice \(11/25/21\)](#)

Anti-salmon farming activists on Canada’s west coast have made a name for themselves by propagating myths, falsehoods and outright lies about marine aquaculture in British Columbia. Their latest missive to malign a world renowned home-grown sustainable industry, which supports over 6,500 livelihoods in BC, claims that sea lice counts have dropped dramatically after the closure of some salmon farms in the contentious Discovery Islands.

That is simply not true, says the Department of Fisheries and Oceans (DFO) and a new independent analysis that compiled five years of sea-lice monitoring in the area with strict protocols.

[NOAA Maps Options for Aquaculture Opportunity Areas in the Gulf of Mexico and Southern California Bight \(11/16/21\)](#)

Today, NOAA released two Atlases compiling the best available science to inform the identification of Aquaculture Opportunity Areas (AOAs) in the Gulf of Mexico and Southern California. NOAA previously identified these regions for their potential to host sustainable commercial aquaculture development in the United States. Areas in the Atlases will have characteristics expected to support multiple types of aquaculture industries including finfish, shellfish, seaweed, or some combination.

[Opinion: Aquaculture is part of solution to declining fisheries \(11/15/21\)](#)

If the past few years have taught us anything, it is the critical need to understand, trust, and follow science when making important public policy decisions. It is with this guiding principle that I offer facts and perspective in response to my colleague and friend [Leonard Forsman's recent column](#) published in the Kitsap Sun regarding net-pen aquaculture in Puget Sound. With global nutrition, Tribal treaty rights, and local jobs at stake, we must be skeptical of alarmist rhetoric based on outdated assumptions, misconceptions, and mistruths.

FISH

[USACE test underwater speakers for invasive species multi-deterrent system at Brandon Road Lock and Dam \(12/2/21\)](#)

U.S. Army Corps of Engineers, Chicago District biologists assisted U.S. Army Engineer Research and Development Center (ERDC) researchers with testing interactions between the electrical barrier near Romeoville, Illinois, and underwater acoustic deterrent transducers, or speakers, to assist with the design and specifications for an invasive species multi-deterrent system at Brandon Road Lock and Dam (BRLD).

Josey L. Ridgway, Katelyn M. Lawson, Stephen A. Shier, Robin D. Calfee, Duane C. Chapman. 2021. An Assessment of Fish Herding Techniques: Management Implications for Mass Removal and Control of Silver Carp. North American Journal of Fisheries Management.

<https://pubs.er.usgs.gov/publication/70224549>

AQUATIC PLANTS

[Invasive weed is choking parts of a Central Texas lake \(11/27/21\)](#)

An invasive underwater weed is spreading in a Central Texas lake popular with anglers, tangling boat propellers and threatening the fish. The weed is hydrilla, an aquatic plant initially imported and sold as an aquarium plant in the 1950s that has become one of the world's most invasive plants. Fishing guide Bob Maindelle says its presence is at an all-time high in Stillhouse Hollow Lake, about 13 miles (20 kilometers) southeast of Killeen.

[DNR To Attack Invasive Species In Iowa Great Lakes With Herbicide \(11/24/21\)](#)

The Iowa Department of Natural Resources will soon apply a herbicide on the north bay of East Lake Okoboji to try combat curly-leaf pondweed. The weed can get quite dense and impedes fishing, swimming, and boating. DNR fisheries biologist Mike Hawkins says a herbicide called Sonar has been around since 1986, but it's never been used in the Iowa Great Lakes before.

FRESHWATER

[\[Texas\] Armored catfish and other invasive species are wreaking havoc in the San Antonio River \(11/16/21\)](#)

"Armored catfish have been around for, I would say, a long period of time, it's hard to determine exactly when there's records from decades ago of them being in the river, they likely were introduced through aquarium dumping, a lot of people will call them algae eaters and their tanks at home." -Shaun Donovan, Environmental Science Department Manager at the San Antonio River Authority

CLIMATE CHANGE

[Invasive species are threatening Antarctica's fragile ecosystems as human activity grows and the world warms \(11/19/21\)](#)

We mapped the last five years of planes and ships visiting the continent, illuminating for the first time the extent of travel across the hemispheres and the potential source locations for non-native species, as the map below shows. We found that, luckily, while some have breached Antarctica, they generally have yet to get a stranglehold, leaving the continent still relatively pristine. But Antarctica is getting busier, with new research stations, rebuilding and more tourism activities planned. Our challenge is to keep it pristine under this growing human activity and climate change threat.

OTHER

[ARS Scientists Discover a Promising Biological Control Agent for Tree-of-Heaven in France \(12/1/21\)](#)

United States Department of Agriculture (USDA), Agricultural Research Service (ARS) scientists and collaborators confirmed the presence of a newly described Eriophyid mite, a potential biological control agent for the invasive tree-of-heaven, in France.

The study, published in *Phytoparasitica*, showed that this was the first record of the mite species in the country, and the species could be a solution for managing tree-of-heaven infestations in Europe and the United States.

[Climate change is forcing some animals to move. Don't call them "invasives." \(11/28/21\)](#)

Ecologists expect climate change to create mass alterations in the habitats of these “range-shifting” or “climate-tracking” species, as they’re sometimes called, which will reshuffle ecosystems in ways that are hard to predict. The migrations are critical to species’ ability to survive hotter temperatures. The scientific community largely views this kind of habitat shift as a good thing, Wallingford and other ecologists told Vox. But the primary lens available to the general public and to policymakers is less forgiving. “Invasive species” is a concept so ingrained in American consciousness that it’s taken on a life of its own, coloring the way we judge the health of ecosystems and neatly dividing life on Earth into native and invasive.

[Two agencies warn \[Australia's\] native species at 'sliding doors' moment \(11/24/21\)](#)

Australia faces a “sliding doors” moment as introduced predators wipe out native species, two government agencies warn. A new CSIRO and Centre for Invasive Species Solutions report flags a looming wave of new extinctions if Australia continues its “business as usual” approach, but says there’s still hope if the right actions occur. CSIRO scientist Dr Andy Sheppard said the magnitude of the invasive species issue was unknown to most Australians but “urgent, decisive, coordinated” action was needed. Damage from invasive species in Australia each year is, meanwhile, costing at least \$25 billion, with the number likely to rise. More than eight in 10 nationally listed threatened species are endangered by invasive species, the report warns, and most of Australia’s native wildlife are found nowhere else on Earth. “Prevention will be much cheaper and more effective than trying to control the spread of pests and weeds once they are established,” Sheppard said.

[Offshore wind plans coming fast and furious \(11/18/21\)](#)

After a 20-year incubation, planning for offshore wind energy has exploded under the Biden administration and fishermen on the East and West coasts are facing a steady stream of challenges, said panelists at a Pacific Marine Expo panel Thursday. “We have been fighting offshore wind since 2003. On the East Coast we think there are about 16 wind leases that are starting to crop up,” said Bonnie Brady, executive director of the Long Island Commercial Fishing Association.

[Traveler Special Report: Invasive Mammals And The National Parks \(11/15/21\)](#)

WHOOSH. It’s a warm, sunny autumn day in Great Smoky Mountains National Park, and I’m standing on the side of the main park road. Leaves have just begun turning gold, amber, and red, so the park is crowded with leaf-peepers. A steady stream of cars zooms past. WHOOSH. I try to ignore the traffic and pay attention to what Ryan Williamson, a park wildlife biologist, is showing me: a section of grass along the roadside that’s rutted and rooted up, like someone had gone off-roading with a miniature ATV. The culprit? Feral hogs. In this case, Williamson believes it was a single feral hog that did the damage in this section along the road, citing reports of a lone pig seen near that stretch in the days before. After a moment, Williamson leads me deeper into the trees to an even larger, muddier area of ground disturbance, this time with wallows of standing water visible. Here is undeniable evidence of the damage that feral hogs do

to the park landscape—uprooting native vegetation, creating new wet areas, and competing with native park wildlife for food and shelter.

[We know what invasive species can do on Earth—what about in space? \(11/18/21\)](#)

The Beresheet crash landed on Earth's Moon in 2019. Part of the ill-fated Israeli lunar lander's payload was a bunch of tardigrades, or "water bears." These organisms are under a millimeter long and can survive extreme cold and radiation by expelling nearly all their moisture before entering a nearly death-like state. The Beresheet tardigrades may have survived the crash and could, potentially, be resurrected by being reintroduced to water.

The tardigrades—sometimes called moss piglets—are safely asleep and probably not running amok on the surface of the Moon. But, in general, scientists, governments, and space agencies around the world agree that bringing Earth's life to extraterrestrial locales, or vice versa, isn't great.

[Report: Anthony Ricciardi, Phillip Cassey, Stefan Leuko, Andrew P Woolnough, Planetary Biosecurity: Applying Invasion Science to Prevent Biological Contamination from Space Travel, BioScience, 2021;, biab115, <https://doi.org/10.1093/biosci/biab115>]

[Conservation Conversation: Opinion = Native or nah – Hawai‘i’s introduced and invasive species \(11/17/21\)](#)

Upon arriving to Hawai‘i, it’s pretty common to receive a plumeria lei. And many (myself included) expect to see niu, the bright green “Gecko” geckos, and other tropical wildlife. This narrative of what Hawai‘i and other tropical islands look like is common, and continually reinforced by TV, movies, and social media. But how many of the plants and animals we see are actually native to Hawai‘i? And why does it matter if it’s native or not?

OUTREACH AND EDUCATION

[\[British Columbia\] New Report On Species at Risk \(11/23/21\)](#)

As intercontinental trade and travel have become quicker and more frequent, so too have introductions and invasions by non-native species both globally and across Canada. Invasive species are the non-native plants, animals or micro-organisms found outside their natural distribution that negatively impact the environment, people (including human health) and the economy. They can spread quickly, compete for resources, prey upon native species, impact industry, dominate natural and managed areas and alter ecosystem structure and function. According to the International Union for Conservation of Nature (IUCN, 2000), invasive species are second only to habitat loss in reducing biodiversity and the second most common cause of species extinctions. British Columbia (BC) has hundreds of species of concern according to the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and listed under the federal Species at Risk Act (SARA).[[FULL REPORT](#)]

[You’re Uninvited: Stopping the Spread of Invasive Species Promo](#) NY State Department of Environmental Conservation

JOBS/GRANTS

[Aquatic Invasive Species Member - American Conservation Experience](#)

Del Rio, Texas, United States

Summary: American Conservation Experience, a nonprofit Conservation Corps, in partnership with the National Park Service, is seeking ONE Aquatic Invasive Species Member to contribute to an aquatic invasive species project alongside Amistad National Recreation Area staff.

For more information about ACE, please visit: www.usaconservation.org.

Start Date: January 3, 2022 (flexible for the right candidate)

End Date: October 2, 2022 (or 39 weeks from start date)

a minimum commitment of 39 weeks is required

Oregon Metro: ITB 3981 Toxicologist: Review and Update Metro's Approved Pesticide List and Revise Metro's Pesticide Use Request Form is posted. Please check the solicitation documents on Bid Locker. **Bids are due on December 9, 2021 at 2:00 pm.**

Metro is seeking a toxicologist(s) for the purpose of updating Metro's approved pesticide list and revising Metro's pesticide use request process. Metro would prefer to contract with one toxicologist that could meet the needs of this project. However, due to the complexity of pesticides, Metro may need to contract with more than one toxicologist. This work could be awarded for a lump sum amount, or possibly time and material contracted work. Proposals are to be submitted electronically ONLY to <http://bidlocker.us/a/oregonmetro/BidLocker>. It is free to register. Your submission must be uploaded prior to the Proposal Due Date and Time. We strongly recommend that you give yourself sufficient time and at least ONE (1) day before the Bid Due Date and Time to begin the uploading process and to finalize your submission. Metro accepts no responsibility for non-receipt and/or delays in receipt caused by transmission and reception problems, equipment failure, or any other similar cause.

Contact Kim Paul (Kim.Paul@oregonmetro.gov) or Rob Hamrick (Rob.Hamrick@oregonmetro.gov) with questions!

Washington: Natural Resource Worker 2 - Aquatic Invasive Species Inspector - 3 Openings - Non-Perm - *14183-21

[Three \(3\) Openings: Non-Permanent. Natural Resource Worker 2 - Aquatic Invasive Species \(Ais\) Inspector](#)

Enforcement Program

Pasco, Washington – Franklin County - **Closes 12/30/2021 11:59 PM Pacific**

Anticipated Appointment Length: 11.5 Months

January 3, 2022 – December 15, 2022

Would you like to be one of the last lines of defense in protecting the Columbia River watershed from invasive plants and animals?

Our AIS Inspectors help protect our diverse agriculture, hydroelectric, recreation, habitat, and ecology that are unique to our region.

In this role, you will inspect boats and educate boaters as they enter the State of Washington.

If this sounds like the perfect opportunity for you, apply today to become an AIS inspector.

[Vertebrate Pest Management Advisor Applied Research and Extension](#)

Location Headquarters: Napa County

Serving Napa, Lake, and Solano Counties, California

PURPOSE: The Vertebrate Pest Management Advisor will implement an innovative extension education and applied research program to address high priority needs and problems related to vertebrate pest impacts in annual and perennial crops.

The advisor will be anticipated to work as a generalist with the ability to bring solutions for the broad variety of vertebrate pests impacting crops and production systems.

The Advisor will complement the existing Pest Vertebrate CE Specialist and Wildlife and Human Conflicts Advisor in the ANR network. Accordingly, the advisor will work closely with UC ANR Wildlife and Pest Program Team, UC ANR IPM program, and specific annual and perennial crop work groups and program teams.

This is an exciting opportunity to develop and deliver relevant program content to have meaningful impacts in local communities and throughout California.

Opportunities abound for extension and research partnerships that link growers and their associations, Pest Control Advisers, and ANR horticulture, pomology, specialty crops, and viticulture academics to help overcome the lack of expertise in vertebrate pest management in agricultural production systems. The advisor will also join a team of highly motivated UCCE colleagues who are passionate about their work, and are dedicated to making a difference within the communities and throughout California. The potential for collaborative projects within the UC ANR system is nearly limitless.

HOW TO APPLY: If interested in this position, please review further details regarding major duties/responsibilities and qualifications at <https://ucanr.edu/about/jobs/>. To apply for this position, please visit: <https://recruit.ucanr.edu/> and choose “applicants” (refer to position #21-41). To assure full consideration, **application packets must be received by January 21, 2022; open until filled.**

[Now accepting applications: 2023 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.

GRANTS

[Request for Proposals: Priority Invasive Weed and Vegetation Management](#)

The [Oregon] Clackamas Soil and Water Conservation District (CSWCD) is looking for qualified contractors to perform invasive weed control and restoration planting on multiple project sites within Clackamas County. Categories of work may include: Manual Site Preparation and Maintenance; Mechanical Site Preparation and Maintenance; Planting; Survey

and Monitoring; Aquatic Site Preparation, Maintenance, and Survey and Monitoring; Project Management.

All documents that support this announcement are posted on the Clackamas Soil and Water Conservation District website (<https://conservationdistrict.org/2021/request-for-proposals-priority-invasive-weed-and-vegetation-management-2021.html>) These documents include:

Request for Proposals

Appendix 1: Sample Contract (including insurance requirements)

o Exhibit 1: Scope of Work

· Attachment A: Proposal Forms

· Attachment B: Indemnity Agreement for Third Party Contractors

Proposals must be submitted to the Clackamas Soil and Water Conservation District by email to the following address and with the provided subject line.

To: procurement@conservationdistrict.org

Subject: RFP #2021-WW-01

Questions or comments should be submitted during business hours Monday through Friday 8:00am-4:30pm to:

Samuel Leininger, WeedWise Program Manager

Clackamas Soil & Water Conservation District

ATTN: RFP #2021-WW-01

22055 S Beaver Creek Rd. Suite 1

Beavercreek, OR 97004

Email: sleininger@conservationdistrict.org Phone: 503-210-6006

PROPOSALS ARE DUE NO LATER THAN 12:00 NOON, **MONDAY JANUARY 3, 2022.**

[Montana: Noxious Weed Trust Fund Grant Program is Now Accepting Applications –](#)

Grant Applications Due January 6, 2022

The Montana Department of Agriculture (MDA) announces noxious weed grant funding is now available through the 2022 Noxious Trust Fund (NWTF) Grant Program.

Established by the 1985 Montana Legislature, the NWTF grants provide funding for noxious weed research projects, development projects, state and community education, and local cooperative - landowner cost share. Funding assistance is provided to counties, local communities, researchers, and educators to assist with their efforts to solve a variety of weed problems in Montana.

In 2021, over \$2 million was awarded to organizations in 54 counties and seven tribal nations across Montana.

Applicants may apply for funding up to \$75,000 per project through [WebGrants - Montana Grants and Loans](#).

[NOAA-NOS-NCCOS-2022-2006972](#)

[Understanding multi-stressor impacts on marine ecosystems under climate change](#)

Department of Commerce

Closing Date for Applications: Jan 18, 2022

The purpose of this document is to advise the public that NOAA/NOS/National Centers for Coastal Ocean Science (NCCOS)/Competitive Research Program (CRP) [formerly Center for Sponsored Coastal Ocean Research (CSCOR)/Coastal Ocean Program (COP)], the NOAA

Climate Program Office (CPO), and the NOAA Ocean Acidification Program (OAP), in partnership with the NOAA Office of National Marine Sanctuaries (ONMS) and the NOAA Integrated Ocean Observing System (IOOS), are soliciting proposals to understand the combined impacts of multiple stressors on the function and health of marine ecosystems within the context of climate change. This information will be used to improve place-based management of marine protected areas and enable the proactive protection of these critical ecosystems under future climate scenarios. Climate change is exacerbating existing environmental stressors (e.g., hypoxia, harmful algal blooms, and ocean acidification) through changes to the fundamental drivers of ecosystems (e.g., temperature, precipitation, seasonal cycles, and biogeochemistry).

[NMFS-Sea Grant Fellowship Call for Applications](#)

The National Sea Grant College Program and the National Marine Fisheries Service (NMFS) support a Ph.D. graduate fellowship in two specific areas:

- Population and ecosystem dynamics
- Marine resource economics

The fellowships offered within this program are aimed at training the next generation of specialized experts in fisheries management.

Important Information:

Deadline: **Applications are due to California Sea Grant by January 27, 2022, 5 p.m. PST**

Funding Availability: \$54,166 per year for up to three years

Anticipated start date: August 1, 2022, with projects to be completed by July 31, 2025

[NOAA-NOS-NCCOS-2022-2007023](#)

[Harmful Algal Bloom Control Technologies Incubator](#)

Department of Commerce

The purpose of this document is to advise the public that NOAA/NOS/National Centers for Coastal Ocean Science (NCCOS)/Competitive Research Program (CRP) [formerly Center for Sponsored Coastal Ocean Research (CSCOR)/Coastal Ocean Program (COP)] is soliciting proposals from the Cooperative Ecosystems Studies Units (CESU) to implement a 5-year Harmful Algal Bloom (HAB) Control Technologies Incubator (HCTI) under the auspices of the NCCOS/CRP Prevention, Control and Mitigation of HAB Program (PCM HAB). This funding opportunity will provide support for one award to develop and administer a national program that accelerates the development and application of HAB control approaches. To accomplish this, the main objective of the HCTI will be to fund extramural proof of concept, innovative HAB control technology projects to assess their feasibility. Promising technologies will then be encouraged to apply to relevant future PCM HAB competitive funding announcements independent from the HCTI. In addition, the other objective of the HCTI will be to provide guidance to end users and stakeholders on navigating the relevant licensing and permitting processes (e.g., National Environmental Protection Act and Federal Insecticide, Fungicide, and Rodenticide Act requirements) relevant to the applicability of proven control methods during responses to ongoing HAB events. The proposals must address how the HCTI will accomplish these two objectives. This funding opportunity is intended to support the administration of the HCTI and is not intended to directly support individual research projects or short term activities on specific local coastal HAB issues. Funding is contingent upon the availability of Fiscal Year 2022 Federal appropriations. If funds become available for this program, one project for a HCTI will be funded for approximately \$1.5M/year for 5 years, not to exceed \$7.5M over that period. If

successful, the selected project may receive an additional \$7.5M for a second and final 5 year period of performance. It is anticipated that projects funded under this announcement will have a September 1, 2022 start date. **Current Closing Date for Applications: Jan 27, 2022**

[National Fish and Wildlife Foundation Emergency Coastal Resilience Fund 2021 Request for Proposals \(RFP\) Released](#)

NFWF's funding comes directly from the Extending Government Funding and Delivering Emergency Assistance Act, (PL 117-43) to support projects that increase the resilience of wildlife habitat and coastal communities impacted by hurricanes and wildfires in 2020 and 2021. Under the same authorities as NFWF's National Coastal Resilience Fund, NFWF will award approximately \$24 million in grants through this RFP for practices that help restore wetlands, build living shorelines, improve hydrologic flow, reduce hazardous fuels, and generally enhance natural systems. The Request for Proposals is officially launched November 17, 2021 and **will close on February 3, 2022**, when the Full Proposals are due. Due to the emergency nature of these funds, a non-federal match is not required. The RFP can be found here:

<https://www.nfwf.org/coastalresilience/emergency/Pages/home.aspx>

You can find additional application instructions on the webpage in the "Tip Sheet."

FEDERAL/STATE/PROVINCIAL LEGISLATION, RULES, ACTIONS

Advocacy:

[Wildlife Forever and Yamaha Rightwaters™ Develop Alliance Against Invasive Species](#)

Wildlife Forever has announced a Memorandum of Understanding (MOU) with Yamaha Rightwaters™ to stop the spread of aquatic invasive species. The Clean Drain Dry Initiative strategic partnership will focus on implementing prevention marketing materials to enhance awareness and expand education throughout the fishing industry. "I am honored to be partnering with Yamaha Rightwaters™. As leaders in the marine industry, their partnership is a commitment to ensuring the future of our fisheries." said Pat Conzemius, President and CEO of Wildlife Forever. Through applied communications, Yamaha Rightwaters™ will adopt Clean Drain Dry marketing materials to increase awareness and expand the capacity for public adoption of AIS best management practices. By engaging professional anglers as ambassadors of conservation, Yamaha customers and pro anglers will help guide the future of invasive species prevention.

State/Province

Judicial

Executive

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Congressional

[Manchin, Barrasso Introduce Bipartisan Outdoor Recreation Bill, Includes AIS Provisions \(11/22/20\)](#)

Washington, DC – U.S. Senators Joe Manchin (D-WV), Chairman of the Senate Energy and Natural Resources Committee, and John Barrasso (R-WY), Ranking Member of the Committee, introduced the *Outdoor Recreation Act* [[S.3266](#)] This bipartisan legislation would increase and improve outdoor recreation opportunities across the nation while improving infrastructure and driving economic growth in rural communities.

“Amid a turbulent time in our history, outdoor recreation has provided millions of Americans with the physical and mental recharging they needed. From combating aquatic invasive species to ensuring recreation management is a top priority of the federal government, this measure will bolster outdoor recreation opportunities well into the future and I encourage all members of Congress to support this bill,” said Frank Hugelmeyer, President, National Marine Manufacturers Association.

The AIS Section of the bill is as follows:

SEC. 202. FEDERAL LAND AND AQUATIC RESOURCE ACTIVITIES ASSISTANCE.

a) Definitions.—In this section:

(1) AQUATIC NUISANCE SPECIES TASK FORCE.—The term “Aquatic Nuisance Species Task Force” means the Aquatic Nuisance Species Task Force established by section 1201(a) of the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (16 U.S.C. 4721(a)).

(2) FEDERAL LAND AND WATER.—The term “Federal land and water” means Federal land and water operated and maintained by the Bureau of Land Management or the National Park Service, as applicable.

(3) INSPECTION.—The term “inspection” means an inspection to prevent and respond to biological invasions of an aquatic ecosystem.

(4) PARTNER.—The term “partner” means—(A) a Reclamation State;(B) an Indian Tribe in a Reclamation State;(C) an applicable nonprofit organization in a Reclamation State; or (D) a unit of local government in a Reclamation State.

(5) RECLAMATION STATE.—(A) IN GENERAL.—The term “Reclamation State” means any State in which a Bureau of Reclamation reservoir is located. (B) INCLUSIONS.—The term “Reclamation State” includes any of the States of—
(i) Alaska;(ii) Arizona;(iii) California;(iv) Colorado;(v) Idaho;(vi) Kansas;(vii) Montana;(viii) Nebraska;(ix) Nevada;(x) New Mexico;(xi)

North Dakota;(xii) Oklahoma;(xiii) Oregon;(xiv) South Dakota;(xv) Texas;(xvi) Utah;(xvii) Washington; and (xviii) Wyoming.

(b) Authority of Bureau of Land Management and National Park Service with respect to certain aquatic resource activities on Federal land and water.—

(1) IN GENERAL.—The Secretary may inspect and decontaminate watercraft entering and leaving Federal land and water located within a river basin that contains a Bureau of Reclamation water project.

(2) REQUIREMENTS.—The Secretary, acting through the Director of the Bureau of Land Management and the Director of the National Park Service, shall—

(A) in carrying out an inspection under paragraph (1), coordinate with 1 or more partners;(B) consult with the Aquatic Nuisance Species Task Force to identify potential improvements in the detection and management of invasive species on Federal land and water; and(C) to the maximum extent practicable, inspect watercraft in a manner that minimizes disruptions to public access for boating and recreation in noncontaminated watercraft.

(3) PARTNERSHIPS.—The Secretary, acting through the Director of the Bureau of Land Management and the Director of the National Park Service, may enter into a partnership to provide technical assistance to a partner—(A) to carry out an inspection or decontamination of watercraft; or(B) to establish an inspection and decontamination station for watercraft.

(c) Grant program for reclamation states for watercraft inspection and decontamination stations.—

(1) WATERCRAFT INSPECTION IN RECLAMATION STATES.—Subject to the availability of appropriations, the Secretary, acting through the Commissioner of Reclamation, shall establish a competitive grant program to provide grants to partners to conduct inspections and decontamination of watercraft in reservoirs operated and maintained by the Secretary, including to purchase, establish, operate, or maintain a watercraft inspection and decontamination station.

(2) COST SHARE.—The Federal share of the cost of a grant under paragraph (1), including personnel costs, shall not exceed 75 percent.

(3) STANDARDS.—Before awarding a grant under paragraph (1), the Secretary shall determine that the project is technically and financially feasible.

(4) COORDINATION.—In carrying out this subsection, the Secretary shall coordinate with—

(A) each of the Reclamation States;(B) affected Indian Tribes; and
(C) the Aquatic Nuisance Species Task Force.

Now What: Both Section 202 of the *Outdoor Recreation Act* [[S.3266](#)] and *Stop the Spread of Invasive Mussels Act* ([H.R.5692](#)) set up cost share (75 % federal/25% non-federal) watercraft inspection and decontamination station grant programs in western states in reservoirs operated

and maintained by the Bureau of Reclamation. Both bills also provide the authority for the National Park Service and Bureau of Land Management to perform watercraft inspections and decontaminations entering and exiting their properties. Unfortunately, neither bill requires mandatory inspection and decontamination of watercraft leaving/entering Federal land and water.

[Rubio, Scott Urge NOAA to Select Waters Near Florida for Aquaculture Opportunity Area \(11/16/21\)](#)

U.S. Senators Marco Rubio (R-FL) and Rick Scott (R-FL) released the following statements after the U.S. Department of Commerce's National Oceanic and Atmospheric Administration (NOAA) announced its Aquaculture Opportunity Area Atlas for the Gulf of Mexico, which identifies nine options for the designation of the first aquaculture opportunity area in the Gulf of Mexico, including three locations in waters near Florida.

[Dingell, LaHood, Tonko, Joyce Introduce Bipartisan Bill to Support Fish and Wildlife Restoration in the Great Lakes \(11/16/21\)](#)

As someone who grew up on the St. Clair River and with many 12th District residents located along the Detroit River, protecting the Great Lakes and its diverse species is personal to me and to so many who call Michigan home," said Dingell. "The Great Lakes are a way of life – providing fresh water, fish and wildlife habitat, and countless opportunities for recreation, while supporting our state's economy and hundreds of thousands of jobs. We've seen what happens when we all work together to protect our Great Lakes, and I am proud to introduce this bipartisan legislation to conserve fish and wildlife, combat **the threat of invasive species**, and protect the Great Lakes for generations to come."

"The Great Lakes Fish and Wildlife Restoration Act is a premier conservation program in the Great Lakes region," said Robert Lambe, Executive Secretary of the Great Lakes Fishery Commission. "The program has a long track record of restoring and sustaining valuable species, protecting critical habitat, and addressing illegal activities that harm our natural resources. The Commission strongly supports the reauthorization of this effective, proven legislation and commends Congresswoman Dingell for her leadership on all things related to the Great Lakes."

[Booker Announces Legislation Aimed at Banning Pesticides from our Agriculture System \(11/23/21\)](#)

U.S. Senator Cory Booker (D-NJ) announced the *Protect America's Children from Toxic Pesticides Act of 2021 (PACTPA)* that would remove dangerous pesticides within our farm system. Specifically, this legislation would update the Federal Insecticide, Fungicide and Rodenticide Act of 1972 (FIFRA) by banning the most damaging pesticides that have been scientifically proven to harm the safety of people and our environment.

APPROPRIATIONS

[Congress averts shutdown after vaccine mandate fight \(12/2/21\)](#)

The Senate on Thursday night passed a short-term funding bill to avert a government shutdown after a dayslong fight over President Biden's vaccine mandate threw the legislation into limbo. Senators voted 69-28 to pass a stopgap bill to fund the government through Feb. 18. The

legislation, which passed the House earlier in the evening, now goes to Biden’s desk where he has until the end of Friday to sign it.

An AIS federal legislative table is posted on the web on the www.westernais.org website. Go to <https://www.westernais.org/federal-provincial-regulations> and see *AIS Legislative Tracker*

TRAININGS, WEBINARS, CONFERENCES AND MEETINGS

Archived Materials

[American Shad in the Columbia River: Past, Present, Future](#) – Presentation to the Northwest Power and Conservation Council 11/17/21

Events: Webinars, Trainings, Conferences and Meetings

Watercraft Inspection Training

Level 1 Virtual Training - January 25–26, 2022 (2 days) 8am-noon PST; [FULL]
Level 1 Virtual Training - February 22-23, 2022 (2 days) 8am-noon PST; [[Register Here](#)]
Level 1 Virtual Training - March 22-23, 2022 (2 days) 8am-noon PST; [[Register Here](#)]

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Level 2 Virtual Training - January 25–27, 2022 (3 days) 8am-noon PST; [FULL]
Level 2 Virtual Training - February 22-24, 2022 (3 days) 8am-noon PST; [[Register Here](#)]
Level 2 Virtual Training - March 22-24, 2022 (3 days) 8am-noon PST; [[Register Here](#)]

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Level 3 Virtual Training - January 11-13, 2022 (3 days) 9am - 5pm PST; [FULL]
Level 3 Virtual Training - February 8-10, 2022 (3 days) 8 am to 4 pm PST;
[[Almost Full, Register Here](#)]
Level 3 Virtual Training - March 8-10, 2022 (3 days) 8 am to 4 pm PST; [[Register Here](#)]

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 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.

[DOI Invasive Species Training Opportunities Spreadsheet](#)

2021

December

[Northeast ANS Regional Panel Fall Meeting](#) December 3, 2021 and December 8, 2021;
Virtual Meeting

The next meeting of the [Washington Invasive Species Council](#) will be held on Thursday, December 9. The meeting will start at 9AM and run until 3PM.

The agenda for this meeting is now [available online](#).

Please note that this is an online meeting and you are encouraged to register in advance.

[Registration is available](#) on Zoom.

[Delta Invasive Species Symposium December 15, 2021](#)

The bi-annual Symposium is a forum for Delta managers, researchers, and decision-makers to meet, share and synthesize information, and communicate best practices and lessons learned. This year's Symposium will focus on early detection and rapid response (EDRR) to invasive species. The virtual event will take place on December 15, 2021, from 9:00 a.m. thru 2:30 p.m. The Symposium will highlight EDRR lessons learned, current EDRR efforts across the Delta and beyond, and future challenges and solutions for EDRR work. The Symposium will consist of invited talks, a panel discussion, and an opportunity for participants to provide feedback on the draft Delta EDRR Framework being developed by the Delta Interagency Invasive Species Coordination (DIISC) Team. The Delta Interagency Invasive Species Coordination (DIISC) Team plans and facilitates the biannual Symposium.

Dec 15, 2021 09:00 AM in Pacific Time (US and Canada)

NAISMA Webinar December 15, 1 p.m. CT - [Classical Biological Control of Weeds – About Misconceptions and Untapped Opportunities Presented](#) by: Urs Schaffner, PhD Head Ecosystems Management, CABI

2022

January

The next meeting of the 100th Meridian Initiative Columbia River Basin AIS Team will be Tuesday, January 11 and Wednesday, January 12, 2022. Contact Paula Hotaling for further information @ PHotaling@psmfc.org. See <https://www.westernais.org/coordination> for past meeting minutes and presentations.

January 19, 1 p.m. CT - [History and Effectiveness of Injurious Wildlife Listing under the “Lacey Act”](#) Presented by: Susan Jewell Injurious Wildlife Listing Coordinator, U.S. Fish and Wildlife Service

Michigan Invasive Species Program’s NotMISpecies Webinar Series:
January 25, 2022, 9:00 a.m. to 10:00 a.m. ET - [Dive into the gene pool: Using environmental DNA to detect invasive species](#)

February

[2022 Midwest Fish and Wildlife Conference](#), February 13-16, Des Moines IA

[INVASIVES 2022 Virtual Forum & AGM](#)

February 15, 2022 - February 17, 2022

The INVASIVES Annual Forum & AGM is an exciting opportunity for non-profit organizations, government staff, Indigenous leaders, industry, stewardship groups, academics and more from across the Pacific Northwest region and beyond, to network and share their knowledge and expertise about invasive species. Everyone is welcome.

The INVASIVES 2022 Forum will incorporate a variety of workshops, keynote presentations, plenary and speedy sessions along with plenty of opportunities for networking throughout the event. See what was posted during last year's forum, INVASIVES 2021, on social media by searching the event hashtag #INVASIVES2021

Michigan Invasive Species Program’s NotMISpecies Webinar Series:
February 16, 2022, 9:00 a.m. to 10:00 a.m ET. - [The AIS-Team: Conservation officers on a mission to prevent invasive species](#)

[National Invasive Species Awareness Week](#)

February 28, 2022 – March 4, 2022

April

April 18-22 ICAIS Oostende Belgium: The [International Conference on Aquatic Invasive Species \(ICAIS\)](#) is the most comprehensive international forum to address new and emerging issues related to aquatic invasive species in freshwater, marine and estuarine environments. ICAIS provides an international platform for the presentation of aquatic invasive species

research that pertains to species biology, risk assessment, prevention, management and control methods, ecological and ecosystem impacts and restoration, outreach and policy.
Online Registration is available now! Early Registration ends 14-Jan-2022

May

Mark your calendars for the [Joint Aquatic Sciences Meeting](#) in Grand Rapids, Michigan, May 14-20, 2022. The meeting will be held at the DeVos Place convention center and it is organized by the Consortium of Aquatic Science Societies (CASS).

[11th International Conference on Marine Bioinvasions](#) May 15-19, 2022; Annapolis, Maryland

October

[Upper Midwest Invasive Species Conference 2022](#)
October 25-27, 2022; Green Bay, Wisconsin.

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