



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

10/8/21

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### **SPOTLIGHT:**

#### **[Non-native fish are main consumers of salmon in reservoirs, Oregon State University researchers find \(9/22/21\)](#)**

When warmwater fish species like bass, walleye and crappie that are not native to the Pacific Northwest, but prized by some anglers, overlap with baby spring chinook salmon in reservoirs in Oregon's Willamette River they consume more baby salmon than native fish per individual, new research found.

The research by Oregon State University, Oregon Department of Fish and Wildlife and U.S. Forest Service Pacific Northwest Research Station scientists, [recently published](#) in the journal *Ecosphere*, may have implications for threatened salmon and future management strategies.

“Mixed stock fisheries are complicated and always changing,” said Christina Murphy, lead author of the paper who is a courtesy faculty member at OSU and a biologist with the U.S. Geological Survey in Maine. “We are providing the science to help managers identify tradeoffs to make the best management decisions for each individual location.”

Fisheries managers in Oregon are increasingly identifying and grappling with threats posed by illegally introduced or invasive species overlapping with native fish populations. In part due to this new research, management actions now include removing harvest restrictions on non-native warmwater fish species, which are sought by some anglers because of their white, flaky meat and

sporty fighting ability, where their presence may have negative impacts on sensitive native fish species, such as salmon...

[\[Full Article\]](#)

## **PUBLIC COMMENT**

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### **NEW SPECIES SIGHTINGS**

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

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

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

#### **DREISSENIDS**

[Minnesota]

[Zebra mussels confirmed in Lake Owasso in Ramsey County \(10/5/21\)](#)

The Minnesota Department of Natural Resources has confirmed the presence of zebra mussels in Lake Owasso, in the communities of Roseville and Shoreview in Ramsey County.

County partners found 13 zebra mussel shell fragments during a SCUBA survey of the lake and DNR staff found a live adult zebra mussel during a subsequent dive search. The initial SCUBA survey was in coordination with a Ramsey County early detection program that includes eDNA analysis and water sampling for zebra mussel larvae.

[Zebra mussel confirmed in Woman Lake in Cass County \(10/5/21\)](#)

The Minnesota Department of Natural Resources has confirmed a report of a zebra mussel in Woman Lake, near Longville in Cass County. Girl Lake will also be added to the infested waters list, because it is downstream of and closely connected to Woman Lake.

Last year, a lake property owner reported a single, small zebra mussel attached to a dislodged portion of his dock. No zebra mussels were found during a subsequent DNR snorkel search nor during a practice dive by the Cass County search and rescue team. This summer, two more lake property owners reported finding individual adult zebra mussels. Again, no zebra mussels were found during follow-up searches.

#### **OTHER AIS**

[Minnesota]

[Starry Stonewort confirmed in Beltrami County section of Mississippi River \(10/5/21\)](#)

The Minnesota Department of Natural Resources (DNR) has confirmed the invasive algae starry stonewort in a section of the Mississippi River in Beltrami County, between Wolf Lake and Andrusia Lake.

## WATCH LIST

[Montana Wants Help From Public In Reporting Snapping Turtle Sightings West Of Divide \(5/20/21\)](#)

[First Asian giant hornet nest of 2021 found near Blaine \(8/20/21\)](#)

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

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

[Dead spotted lanternfly found in Michigan, public urged to look for invasive, crop-killing species \(9/15/21\)](#)

## **DREISSENID MUSSELS**

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[Genetic mussel solution examined \(10/5/21\)](#)

Researchers at the University of Wisconsin — River Falls are looking at using RNA interference to turn off a gene in zebra mussels. They are targeting the genes that lead to shell formation or development of the threads that allow mussels to attach to surfaces.

Meanwhile, The American Bureau of Reclamation, a US federal entity that oversees water management, is looking at DNA technology to control quagga mussels. The goal is to target quagga mussel reproductive processes.

[\[South Dakota\] Prevention is key to curbing zebra mussel spread \(10/1/21\)](#)

Invasive species are nothing new to agencies tasked with tending to public lands and wildlife habitats. From plants and animals to aquatic life, invasive species come in all forms. Now, South Dakota is dealing with the “poster child of invasive species” — the zebra mussel.

That was South Dakota Game, Fish and Parks spokesman Nick Harrington’s description of the unwanted mussels.

“The most important part is preventing the spread through the waters, particularly those western reservoirs,” he said about the department’s efforts.

[Okanagan Basin Water Board pushes for millions to protect, regulate waterways \(10/1/21\)](#)

The Okanagan Basin Water Board is pushing for hundreds of millions in funding for its three highest priority initiatives. In a letter to the province's select standing committee on finance and government services, the water board says those priorities are:

Funding for a review of the Okanagan Lake regulation system and operating plan

Funding to prevent invasion by non-native zebra and quagga mussels

Establishing a permanent watershed security fund to support protection of water sources

The board notes the level of Okanagan Lake fluctuates more significantly than in the past, due to climate change, and the infrastructure and operating plan "are no longer adequate."

## [US Bureau of Reclamation Costs Associated with Invasive Mussels Impacts and Management.\(9/21/21\)](#)

Final report and infographic on the Costs Associated with Invasive Mussels Impacts and Management. Now available! This study explores the impacts of mussels through an evaluation of costs associated with mussel prevention strategies, ecological proxies, and costs of capital investments and operations and maintenance (O&M) expenditures to mitigate mussel-related damages at hydropower facilities. Watercraft inspection and decontamination (WID) stations are the primary strategy used to prevent the spread and introduction of dreissenid mussels throughout the West. The 2019 average annual WID budget was approximately \$1,605,900. Control cost data collected through a survey from S&T Project 1876 showed that surveyed hydropower facilities experienced negative economic impacts related to control or mitigation of mussel-related damages. Facilities surveyed have spent approximately \$10 million in total on preventative control measures since mussel inception. Facilities surveyed spend approximately \$464,000 annually on increased maintenance. Total reoccurring maintenance costs for facilities surveyed were \$650,000 per occurrence. Facilities surveyed spend approximately \$88,000 in total annually on monitoring. Mussel infestation can have a variety of ecological impacts which can result in negative economic impacts. This analysis did not attempt to quantify lost ecosystem benefits, but rather it relied on existing studies to estimate a range of values for lost ecosystem or social benefits. This study provides evidence that mussels management strategies provide considerable value to the nation. This research project was funded by the Reclamation Science and Technology Program. Links (once on the page click download to get the pdf):

Report: <https://data.usbr.gov/catalog/4506/item/11035>

Infographic: <https://data.usbr.gov/catalog/4506/item/11049>

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

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### [Zebra mussels intercepted by Saskatchewan Environment near Manitoba border \(9/16/21\)](#)

Saskatchewan Environment officials said swift action by inspectors and conservation officers prevented zebra mussels from entering the province. The ministry said a boat contaminated with invasive zebra mussels was intercepted on Aug. 30 at a watercraft inspection station by Moosomin near the Manitoba border. It was determined by conservation officers that the owner was an Alberta resident who recently purchased the boat in Manitoba.

### [\[Montana\] A record number of mussel-fouled watercraft have been intercepted at state inspection stations this summer \(9/30/21\)](#)

It's been kind of a half empty, half full aquatic invasive species (AIS) inspection effort this summer in Montana. There has been less watercraft inspected but a record number of mussel-fouled watercraft discovered. That's not good but the fact that inspectors found them is good. In 2020, 174,423 watercraft were inspected, and a then-record 35 zebra or quagga mussel fouled watercraft were intercepted. According to the latest AIS Bureau dashboard more than 107,000 watercraft inspected and 59 mussel-fouled watercraft found.

### [New inspections in place after invasive mussels found in Castaic Lake \(9/27/21\)](#)

DWR conducts regular monitoring, even before these findings, and has continued conducting them since. So far, no evidence has been found of the mussels in their larval stages, which Mowry describes as “free floating in the water column, unseen to the naked eye.”

“So that’s why it’s just all about the water and being transported in the water,” he explained.

While they never wanted this unwelcome visitor, his team did have a plan in place to deal with it. They regularly inspect boats coming in to make sure they are dry since any water could potentially be carrying stowaways. Now they’ve added another inspection on the way out, making sure the boats are on their way to being dry, which will help prevent any further spread. They also add the boats to a database other facilities can check and they mark the vessels with a tag.

### [I-90 Watercraft inspection station last line of defense in Montana \(9/22/21\)](#)

For those who own any type of water vessel, the message of Clean, Drain & Dry is very familiar. It’s the slogan, and instructions, for the Montana Fish, Wildlife and Parks Watercraft Inspection Stations across the Big Sky Country.

It’s a mandatory stop with stiff consequences if you drive by with your kayaks, boat, paddle boards, jet skis or any water-toy going in any direction.

The first station in Montana for east bound traffic and/or the last one for westbound travelers is at the Drexel Exit 25 on I-90.

## **BALLAST WATER/BIOFOULING**

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### [IMO set to expand regional presence with new office in Pacific \(10/6/21\)](#)

IMO's Technical Cooperation Committee at its 71st session (TC 71) (20-24 September) has approved the establishment of an IMO Regional Presence Office (RPO) for the Pacific Islands region. If approved at the thirty-fourth extraordinary session of the Council (08 - 12 November 2021), this will see the Pacific Region become the sixth to feature an IMO RPO.

## **MARINE**

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### [Invasive green crabs spreading on US West Coast despite lack of genetic diversity \(10/6/21\)](#)

The green crab, *Carcinus maenas*, is a widely distributed invasive species that eventually alters its new environment. It's assumed that such species have high genetic diversity, or a variety of characteristics allowing them to adapt and thrive. But the green crab has low genetic diversity, while still spreading rapidly in a new part of the world. A U.S. National Science Foundation-funded study led by Carolyn Tepolt of the Woods Hole Oceanographic Institution is investigating the adaptive mechanisms of the green crab along the west coast of North America, where it has shown extensive dispersal in the last decade despite minimal genetic diversity.

The [results are published in Molecular Ecology](#). The project is a collaboration among scientists at WHOI, Portland State University, the Smithsonian Environmental Research Center and the University of California, Davis.

Tepolt, C. K., Grosholz, E. D., de Rivera, C. E., & Ruiz, G. M. (2021). Balanced polymorphism fuels rapid selection in an invasive crab despite high gene flow and low genetic diversity. *Molecular Ecology*, 00, 1– 15. <https://doi.org/10.1111/mec.16143>

### [A remarkable parasite has come to Alaska. And now it must die.\(9/18/21\)](#)

An invasive isopod is on the move in Alaska, having been found now in both Ketchikan and Sitka. But the organism affects only one creature: the blue mud shrimp. If you've never heard of the blue mud shrimp, then this invasive isopod probably isn't a concern of yours — but it should be.

## AQUACULTURE

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### [Canada's fisheries reform efforts knocked after Bernadette Jordan loses reelection bid \(9/29/21\)](#)

Canada Minister of Fisheries, Oceans, and the Canadian Coast Guard Bernadette Jordan lost her reelection bid in her local riding in Nova Scotia during the 44th Canadian general election on 20 September. Her loss was partially blamed on controversial fisheries policies she pushed for, including a plan to shift aquaculture in British Columbia from in-ocean pens to land-based formats, as well as Fisheries and Oceans Canada's handling of Indigenous fishing rights in Nova Scotia.

### [Swinomish tribal members say steelhead net pens violate fishing rights, add their voice to state Supreme Court case \(9/22/21\)](#)

The net was alive and thrashing with pink salmon as fishers drew their catch up on the beach. This place has been a beloved fishing spot on the Swinomish reservation for generations, and beach seine fishing the run of pinks storming back to the Skagit River is a seasonal rite. Now the tribe has joined as a friend of the court in a lawsuit to block permits that allow steelhead farming in a commercial net pen just offshore near Hope Island. The state Supreme Court is scheduled to hear the case next week.

In its brief filed in the case, Swinomish tribal leaders, elders and fishers say the pen is a deep cultural insult and violation of their treaty fishing rights. The pen's anchor lines foul their nets, tangle crab pots and force tribal fishers to keep clear of a productive fishing area they reserved a right to in the Treaty of Point Elliott, tribal members stated in declarations.

## FISH

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### [How to save an endangered fish? Eat their enemies, say N.S. conservation groups \(10/1/21\)](#)

Conservation groups in Nova Scotia are working to save the nearly extinct Atlantic whitefish by serving up the invasive species threatening it. "One of the several threats facing the Atlantic whitefish is the introduction of aquatic invasive species," Katie McLean, the program manager for the Clean Annapolis River Project, told CBC Radio's Information Morning Halifax on Friday. "In this case, it's smallmouth bass and chain pickerel." Smallmouth bass and chain

pickereel are invasive predator species that have been threatening the whitefish for years. Whitefish can now only be found in three lakes outside Bridgewater.

[\[Montana\]FWP removing goldfish from a private pond near Zortman \(9/21/21\)](#)

Montana Fish, Wildlife & Parks are using the chemical rotenone to remove invasive goldfish from an unnamed private pond on upper CK Creek, approximately one mile from Zortman. The removal began Sept. 21, and the chemical will remain in the water and slowly degrade for four-five weeks.

[\[Tennessee\] Carp catch passes 10 million pounds \(9/16/21\)](#)

Since its inception three years ago, the Tennessee Wildlife Resources Agency's Asian carp harvesting incentive program has removed 10 million pounds of the invasive fish from Kentucky Lake and Lake Barkley. The TWRA helps subsidize commercial netting and wholesale processing of the fish at plants in the Kentucky Lake area. Most of the carp are processed into pet food and fertilizer, and markets are being explored for human consumption.

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## AQUATIC PLANTS

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[\[Minnesota\] Starry Stonewort confirmed in Beltrami County section of Mississippi River \(10/5/21\)](#)

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## FRESHWATER

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[Crayfish and carp among the invasive species pushing lakes towards ecosystem collapse \(10/6/21\)](#)

Certain invasive, non-native species can disrupt lakes to the point of rapid ecosystem collapse, contaminating water for drinking, aquaculture and recreation, a [new study](#) has found.

Human activity and climate change are causing invasive non-native species to spread rapidly across the globe. Researchers have found that certain invasive species can push lake ecosystems beyond a critical 'tipping point', causing a sudden shift from healthy to degraded conditions that is difficult to reverse.

Reynolds, S. A. & Aldridge, D. C. Global impacts of invasive species on the tipping points of shallow lakes. *Global Change Biology*, October 2021 [DOI: 10.1111/gcb.15893](https://doi.org/10.1111/gcb.15893)

[New Zealand mud snails spotted in Bitterroot \(9/29/21\)](#)

Montana Department of Fish, Wildlife and Parks has notified Trout Unlimited and landowners in the area of Mitchell Slough, a 19-mile long spring-fed channel of the Bitterroot River, that it now

hosts an identified population of New Zealand mudsnails. New Zealand mudsnails (NZMS) are a small aquatic snail native to New Zealand. They are relatively new to Montana. They were first detected in North America in Idaho's Snake River in 1987 and were first detected in Montana in 1995. Now they are found in the Madison, Jefferson, Beaverhead, Ruby, Bighorn, Missouri and Yellowstone Rivers.

#### [Montana FWP Staff Wraps Up Aquatic Invasive Species Survey Season \(9/27/21\)](#)

Montana Fish, Wildlife & Parks is wrapping up another season surveying for aquatic invasive species (AIS). FWP and partner AIS early detection crews surveyed more than 300 waters around the state, collecting over 2,200 early detection samples looking for new populations of invasive mussels, snails, clams and aquatic weeds.

AIS early detection crews conducted focused surveys for AIS at all fish hatcheries in the state, assessed Eurasian watermilfoil treatments in Noxon Reservoir and supported a state-wide crayfish survey project. AIS staff worked with a variety of partners on Eurasian watermilfoil eradication in Beaver Lake near Whitefish, fragrant water lily removal in Holland Lake and Asian clam eradication in Lake Elmo in Billings.

#### [Crayfish get more interesting at bigger parties](#)

University of Illinois College of Agricultural, Consumer and Environmental Sciences  
In many North American lakes, a tiny clawed creature has become a big bully. The invasive rusty crayfish roams lakebeds, snapping up snails, bivalves, and water plants, cutting off food supplies for native crayfish and other animals. And when they're feeling saucy, some mount daring raids on fish eggs, reducing sport-fish populations.

#### [Invasive crayfish are dying in the Midwest. Could a fungus be the cause? \(9/27/21\)](#)

...To investigate the crayfish's decline in Wisconsin, Larson and his colleagues pored over decades of trapping data recorded from 17 lakes throughout northern Wisconsin. The data showed that eight of the lakes experienced rusty crayfish declines between 1975 and 2017—and when Larson and his team looked for possible reasons, they discovered that the water bodies all had muddy or sandy bottoms...

## CLIMATE CHANGE

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#### [Study Finds Growing Potential for Toxic Algal Blooms in the Alaskan Arctic \(10/4/21\)](#)

Changes in the northern Alaskan Arctic ocean environment have reached a point at which a previously rare phenomenon—widespread blooms of toxic algae—could become more commonplace. These blooms potentially threaten a wide range of marine wildlife and the people who rely on local marine resources for food. That is the conclusion of a [new study](#) about harmful algal blooms of the toxic algae *Alexandrium catenella* published in the journal Proceedings of the National Academy of Science. Microscopic algae in the ocean are most often beneficial and serve as the base of the marine food web. However, some species produce potent neurotoxins that can directly and indirectly affect humans and wildlife.

## OTHER

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### [Chinese media suggest Maine lobster was ‘Pandora’s box’ that unleashed COVID-19 \(10/2/21\)](#)

Chinese media outlets have suggested that a 2019 shipment of Maine lobster was a “Pandora’s box” that unleashed the global COVID-19 pandemic. That claim comes after cooperation broke down over the summer between Chinese officials and World Health Organization investigators, who said the window for discovering the origins of the virus is “closing fast.” Earlier this year, WHO scientists concluded that the virus likely jumped from an animal to a human and ruled the possibility of a laboratory leak as “extremely unlikely.”

## OUTREACH AND EDUCATION

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### [Reduce Invasive Pet and Plant Escapes \(RIPPLE\)](#)

Working with aquarium and water garden owners and retailers to ensure Michigan's waterways are protected against invasive species

### [Preventing Aquatic Invasive Species through Behavior Change](#)

The Minnesota DNR’s Invasive Species Program has embarked on an exciting project that aims to better promote the adoption of desirable aquatic invasive species (AIS) prevention behaviors and create positive social norms supporting AIS prevention in Minnesota. The products of this effort will be useful to AIS program managers. The handout [Preventing AIS through Behavior Change PDF](#) provides a summary of the project

## JOBS/GRANTS

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**Fish and Wildlife Biologist - GS-0401-09/11:** USFWS Austin Ecological Services Field Office is recruiting a permanent Fish and Wildlife Biologist to support freshwater mussel conservation activities in Central Texas. Specific tasks will include assisting with status assessments and the development and implementation of recovery actions in coordination with a diverse array of stakeholders and external partners. **The closing date for the position is 10/14.**

- All qualified applicants can apply here:  
<https://www.usajobs.gov/GetJob/ViewDetails/616012800>
- Career merit promotion applicants can apply here:  
<https://www.usajobs.gov/GetJob/ViewDetails/616013600>

**Biologist (Invasive Species) - GS- 0401-9/11:** This newly created position will serve the National Wildlife Refuge System of the U.S. Fish and Wildlife Service. As a member of the regional invasive species team, you will serve as a subject matter expert in identifying, detecting,

preventing, and managing invasive plants and other species. You will help build a strategic and adaptive approach to managing invasive species, building on our scientific program that includes an innovative, thorough protocol framework for inventorying invasive plants. The position will be located in one of the following two locations within the Division of Natural Resources and Conservation Planning: Hadley, MA – Regional Office, North Atlantic-Appalachian Region or Sussex NJ – Wallkill River National Wildlife Refuge. - **closes October 12, 2021**

- All U.S. Citizens - <https://www.usajobs.gov/GetJob/ViewDetails/615537500>
- Merit promotion – federal employees and other eligible applicants - <https://www.usajobs.gov/GetJob/ViewDetails/615537600>

#### [AIS INTERDICTION SPECIALIST \(WILDLIFE BIOLOGIST II\) - PRICE, UT \(BULLFROG\)](#)

Click [HERE](#) to view the job details and/or apply.

It is schedule: TL, time-limited full-time position

Benefits: Yes

Location: Bullfrog, Utah

Requisition #29014

**Close: Tuesday, October 12, 2021 at 11:59 p.m.**

#### [Invasive Species Biologist \(GS-9/11\) North Atlantic-Appalachian Region](#)

You are invited to join our team charged with preventing and managing invasive species across the 75 National Wildlife Refuges from Maine to Virginia! The position will be located in one of the following two locations within the Division of Natural Resources and Conservation Planning: Hadley, MA – Regional Office, North Atlantic-Appalachian Region or Sussex NJ – Wallkill River National Wildlife Refuge

Link to USA Jobs Announcements – **closes October 12, 2021**:

All U.S. Citizens - <https://www.usajobs.gov/GetJob/ViewDetails/615537500>

Merit promotion – federal employees and other eligible applicants -

<https://www.usajobs.gov/GetJob/ViewDetails/615537600>

#### [The Montana Department of Agriculture is accepting applications for our Noxious Weed Task Force Coordinator.](#) **First review of applicants will be on October 14, 2021.** Open until filled.

Job Overview: Oversees program operations, conducts inspections and investigations, and provides training and education to governmental agencies, the farming/ranching community, and others interested in the program. The position may provide general guidance and act as a resource to other department employees.

As the Noxious Weed Task Force Coordinator, you will:

- Provide state-wide coordination for the existing county strike teams and new invader Cooperative Weed Management Areas.
- Serve as the expert in best management practices, state-wide species data, and provides partners with education materials and training, the latest research and issues related to new invaders, and Early Detection, Rapid Response (EDRR) procedures and recommendations.

- Implement and coordinate training and educational programs on noxious weeds and management techniques for farmers, ranchers, applicators, local communities, and others.
- Manage documentation and data for program.
- Assist in developing the program to further protect Montana from noxious weeds, comply with evolving legislation, and meet industry needs.
- Assist land managers with site-specific monitoring and data collection in grant-funded project areas.
- Develop and coordinate educational materials and bulletins related to noxious weeds; develop topical materials; and disseminate information and materials to interested parties.

[The USDA ARS Pacific Shellfish Research Project in Newport, Oregon is seeking a Supervisory Research Biologist \(Research Leader\).](#)

The mission of the program is to develop genetically improved shellfish stocks, promote enhanced disease resiliency, modernize production technologies, and transfer technologies and improved stocks to shellfish farmers.

Responsibilities of the Research Leader include leading and performing research on shellfish production in the Pacific West. Enhance and extend management practices for shellfish aquaculture that reduce juvenile mortality and optimize estuarine habitat function. Advance and implement genome-enabled improvement technologies for the Pacific oyster. Establish working relationships, communication channels, cooperative research, and research priority setting with state agricultural experiment stations, universities and industry, and national and international organizations. Lead and coordinate stakeholder relations to promote problem-solving research for the shellfish industry. Supervise program scientists and manage human, fiscal, and physical resources. Provide internal and external technical information and consultation and ensure proper interpretation and reporting of scientific research results and information.

Salary Range: \$108,885 to \$166,502 per year

For more information on the research program, please visit

<https://www.ars.usda.gov/research/programs-projects/project/?accnNo=433817&fy=2020>

## GRANTS

[Now Open: FY 2022 Grant Opportunity for Marine Debris Prevention Projects](#)

The NOAA Marine Debris Program is proud to announce our FY 2022 Marine Debris Prevention notice of funding opportunity.

NOAA will fund prevention projects that actively engage and educate a target audience (such as students, teachers, industries, etc.) in hands-on programs designed to raise awareness, reduce barriers to marine debris prevention, and encourage and support changes in behaviors to ensure long-term prevention of marine debris. NOAA will also fund projects in the U.S.-Mexico and U.S.-Canada border regions, subject to additional eligibility criteria. [Full Grant information here.](#)

**The Letter of Intent (LOI) submission period for prevention projects will extend from September 13 to October 29, 2021.**

## [Michigan Invasive Species Grant Program \(MISGP\)](#)

### Grant Program Details

The Departments of Natural Resources, Environmental Quality and Agriculture and Rural Development work together to address strategic issues of prevention, detection, eradication, and control for both terrestrial and aquatic invasive species in Michigan.

### Criteria:

This program is designed to address strategic issues of prevention, detection, eradication and control for both terrestrial invasive species (TIS) and aquatic invasive species (AIS) in Michigan. Projects must support the overall goals of the MISGP:

- Prevent new invasive species introductions.
- Strengthen statewide invasive species early detection and response network.
- Limit the dispersal of recently confirmed invasive species.
- Manage and control widespread, long-established invasive species.

Specific priorities and scoring criteria can be found in the MISGP handbook. Proposals will be recommended for funding based on a combination of scoring criteria, project type, project metrics, geographic location and available funding.

Applicant Eligibility: Local, state\*, federal or tribal units of government, Non-profit organizations, Universities

\*State agencies should contact the MISGP contact prior to preparing an application.

Application Process: A request for proposals will be issued September 01, 2021.

**Full proposals will be due November 01, 2021**

Awards anticipated in March, 2022.

Contact: Erin Campbell, 269.300.9698 [CampbellE6@Michigan.gov](mailto:CampbellE6@Michigan.gov)

[Montana] [AIS Grant Cycle Open: DNRC and MISC will be accepting grant applications beginning August 1 to fund aquatic invasive species projects.](#)

NEW this cycle:

DNRC is transitioning from WebGrants to Submittables and this change will make it easier to complete and manage your application online. Grantees will be able to complete reports, send notifications, and track and edit submissions. [Click here to create an account](#) and [here to watch a video on how to get started with Submittables.](#)

MISC has established permanent dates for the annual AIS grant cycle.

Application cycle opens: August 1

**Application cycle closes: 1st Wednesday in November by 5 p.m. (11/3/21)**

AIS Grant Hearings: 2nd Wednesday in January (1/12/21)

Up to \$50,000 is available per project to Montana communities or local, state, tribal, or other entities within the state and to Montana-based non-governmental entities.

AIS grants are intended to increase local capacity and involvement to address AIS issues.

Projects that address the following AIS management components are eligible and include:

- Prevention
- Early detection
- Education and outreach
- Research
- Treatment

Current state-wide priorities that have been identified and vetted with former grantees and stakeholders for the upcoming AIS grant cycle include grants related to:

- Monitoring / early detection projects to expand local capacity and involvement in multi-AIS taxa early detection efforts.
- AIS outreach projects that expand AIS awareness at the local level.
- AIS research projects including eDNA research related to dreissenid mussel early detection addressing eDNA Science Advisory Panel recommendations.

Locally-led proposals that address the state-wide priorities will receive ranking preference, however all eligible grant requests will be evaluated and considered.

**Applications are due Wednesday, November 5, 2021, by 5 pm.**

AIS Grant Program Guidelines and application instructions can be found [here](#).

Contact us with questions:: [lodman@mt.gov](mailto:lodman@mt.gov), [scriswell@mt.gov](mailto:scriswell@mt.gov)

### [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).

[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 (PCMHAB). 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 PCMHAB 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.

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

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**State/Province**

[\[Hawaii\] The Fight Against Invasive Species Has Received Less Funding During the Pandemic \(9/27/21\)](#)

The focus on the pandemic has taken attention — and some funding — away from the fight against invasive species.

The Hawaii Invasive Species Council says a lack of focus on capacity building in this area is short-sighted and will eventually be even more costly to the state.

The council, made up of five state departments and the University of Hawai‘i, is prepping its next progress report for the 2027 Hawaii Interagency Biosecurity Plan. The update will mark the halfway point in the original timeline for the 10-year plan.

[\[Minnesota\] Group Pressing Minnesota Department of Natural Resources to Adopt More Robust Aquatic Invasive Species Plan \(9/16/21\)](#)

Following the recent discovery of zebra mussels in two more Minnesota lakes, the Department of Natural Resources is being pressed to adopt a more robust management plan. The DNR says Horseshoe Lake in Crow Wing County and Rainy Lake, which is also connected to several other bodies of water, recently identified zebra mussel infestations.

The Minnesota DNR's blueprint for combating aquatic invasive species like zebra mussels was written in 2009. Minnesota Lakes and Rivers Advocates Executive Director Jeff Forester says he hopes it's a comprehensive strategy with better coordination of on the ground efforts, saying, "Nobody really knows what anybody else is doing, and it's not targeted toward specific and achievable goals. It's not coordinated."

He says the DNR should be guiding collaboration between lake associations, county government, and others doing prevention work. The DNR says it anticipates putting out a new management plan every five years, but the agency's deputy director of ecological and water resources, Ann Pierce, says that kind of timeline would require more reviews by the federal government. She says that could delay prevention funding from congress by up to a year and says that would put up a "roadblock in some of that annual granting process."

### **Judicial**

### **Executive**

[Interior Office of Insular Affairs Announces Nearly \\$3 Million to Protect Coral Reefs and Combat Invasive Species in the Insular Areas \(9/29/21\)](#)

The U.S. Department of the Interior's Office of Insular Affairs (OIA) has announced \$2,772,443 in Coral Reef and Natural Resources Initiative (CRNR) grant funds to protect coral reef resources in the U.S. territories and the freely associated states. The funding includes \$1,541,421 that will support efforts to control and eradicate invasive species in the insular areas.

"Supporting healthy coral reefs and protecting natural resources from invasive species are essential components to confront climate change effectively," said Deputy Assistant Secretary Keone Nakoa. "Due to their island geographies and the increasing frequency and severity of natural disasters, families in the U.S. territories and the freely associated states are particularly vulnerable to the existential threat of climate change. I am pleased to announce these FY 2021 funding awards, which help to address this priority for the Biden-Harris administration."

[Interior reverses Trump, moves BLM headquarters back to DC \(9/17/21\)](#)

The Interior Department will restore the Washington, D.C., headquarters for the Bureau of Land Management, which was moved to Colorado during the Trump administration, while maintaining the Colorado office as its "Western headquarters."

The department announced its decision on the controversial move in a statement on Friday. The Trump administration shifted its headquarters from Washington to Grand Junction, Colo., in what critics saw as an attempt to drive out career officials. The Trump administration had argued that it was putting officials closer to the land that they managed.

### **Congressional**

### [Infrastructure bill stalls after Democratic leaders fail to wrangle support \(10/1/21\)](#)

WASHINGTON — House Democratic leaders appeared to have failed to wrangle enough support Friday to pass the \$550 billion Infrastructure Investment and Jobs Act ( [H.R.3684](#)) - after intraparty fighting delayed a planned vote — further stalling one of President Joe Biden's top legislative priorities.

### [Support builds for Recovering America's Wildlife Act \(10/1/21\)](#)

The Recovering America's Wildlife Act, a key priority for The Wildlife Society, is continuing to gain support in both chambers of the U.S. Congress, setting up an opportunity for movement on the bill not seen since last Congress. In April, Representatives Debbie Dingell (D-MI) and Jeff Fortenberry (R-NE) reintroduced the House bill (H.R. 2773). The bill currently has 118 bipartisan co-sponsors. The Senate counterpart (S. 2372), introduced in July by Senators Martin Heinrich (D-NM) and Roy Blunt (R-MO), has gained 24 bipartisan co-sponsors, with more expected to join in the coming weeks.

**Note:** [H.R.2773](#) has 122 cosponsors, [S.2372](#) has 28 cosponsors

### [Congress approves bill to prevent government shutdown \(9/30/21\)](#)

Congress has approved stopgap spending legislation that would avert a government shutdown at midnight tonight. The Senate this afternoon easily passed, 65-35, a bill to fund government through Dec. 3, extend expiring surface transportation programs and provide \$26.6 billion in emergency disaster aid. A debt ceiling provision opposed by Republicans was jettisoned to ease passage. The House followed quickly, approving the measure 254-175.

## APPROPRIATIONS

### [Biden signs bill to avert shutdown \(9/30/31\)](#)

President Biden on Thursday signed a stopgap bill that will keep the government funded through early December, narrowly averting a government shutdown. The House and Senate each passed the continuing resolution earlier Thursday. The bill funds government operations through Dec. 3 and includes \$28.6 billion in additional disaster relief and \$6.3 billion for Afghan refugee resettlement, as requested by the White House.

### [Senate approves short-term debt ceiling increase \(10/7/21\)](#)

The Senate on Thursday approved a deal to increase the debt ceiling and keep the country solvent into December, moving to stave off a default expected to occur in a matter of days. Under the agreement passed by the Senate, the debt ceiling will increase by \$480 billion. The Treasury Department, according to Senate aides, thinks that will set up the next deadline for Dec. 3, the same day government funding is set to expire.

**Now What:** According to [E&E Daily \(10/7/21\)](#): *The punt on the debt limit could set up two deadlines in December: one to avert a default and another to sidestep a government shutdown when spending runs out Dec. 3. Such a scenario could potentially give the GOP more leverage in year-end spending talks with a Democratic president and*

*Democratic House and Senate that otherwise might find little reason to negotiate with Republicans.”*

[Slow progress on budget package with deadline weeks away \(10/8/21\)](#)

Last week’s [enactment of a government funding stopgap](#) through Dec. 3 and the \$480 billion debt ceiling boost that will punt the deadline for another increase by a few months will allow the Democrat-controlled Congress to spend the remainder of the fall focused on passing President Joe Biden’s social and climate spending and tax package. But as Democratic leaders eye an end-of-month deadline for passing the sweeping package through the filibuster-proof budget reconciliation process, the party has yet to agree on a framework for a scaled-down version of the bill that both moderate and progressive Democrats can support. “We’re working hard, we’re making progress, and we’re shooting to get it done by Oct. 31,” Senate Majority Leader Charles E. Schumer told reporters after a closed-door lunch Thursday at which Democrats discussed the reconciliation package. Democrats are expecting to cut their original plan for \$3.5 trillion in new spending and tax cuts to around \$2 trillion to accommodate centrist lawmakers’ concerns, but they have yet to settle on a new topline.

[Infrastructure bill stalls after Democratic leaders fail to wrangle support \(10/1/21\)](#)

WASHINGTON — House Democratic leaders appeared to have failed to wrangle enough support Friday to pass the \$550 billion Infrastructure Investment and Jobs Act ( [H.R.3684](#)) - after intraparty fighting delayed a planned vote — further stalling one of President Joe Biden's top legislative priorities.

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

# TRAININGS, WEBINARS, CONFERENCES AND MEETINGS

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## [Archived Materials](#)

The Western Regional Panel On ANS Virtual Annual Meeting was held the week of September 21-24. Many thanks to the Annual Meeting Planning team, our presenters and moderators to helping to create a successful meeting.

If you missed any presentations or would like to revisit them check out the [WRP on ANS's YouTube Channel](#) to watch

## [Events: Webinars, Trainings, Conferences and Meetings](#)

### **Watercraft Inspection Training**

Level 1 Virtual Training - November 2-3, 2021 (2 days) 8am-noon PST; [[Register Here](#)]

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

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 - November 2-4, 2021 (3 days) 8am-noon PST; [[Register Here](#)]

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

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; [[Register Here](#)]

Level 3 Virtual Training - February 8-10, 2022 8 am to 4 pm PST; [[Register Here](#)]

Level 3 Virtual Training - March 8-10, 2022 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](mailto:quaggadee@cox.net)

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*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.*

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## [DOI Invasive Species Training Opportunities Spreadsheet](#)

**2021**

**October**

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

[Save the date: WALPA is heading to the Tri-Cities this fall!](#) WALPA is returning to the east side in 2021 to host its 34th annual conference in Richland from October 20-22. Please join us at the newly remodeled Holiday Inn Richland on the Columbia River. This year's theme, "It Takes a Village," was chosen to highlight collaborative efforts to understand, protect, and restore our lakes. Stay tuned for the call for abstracts, registration, and hotel reservation information. We are looking forward to seeing you in Richland!

[TWS: Recovering America's Wildlife Act Opportunity for Action](#)

Policy experts from The Wildlife Society and the American Fisheries Society will host a webinar on Wednesday, Oct. 13 at 11:30 a.m. EST to discuss ways that natural resources students and professionals can elevate the need for at-risk species funding and promote passage of the Recovering America's Wildlife Act. Join us to learn how you can take action in support of this game changing proposal at a pivotal point in the push for dedicated conservation funding. Check out [TWS' Zoom platform](#) to learn more and register for the event

[ISCBC's webinars: Biological Control – A Management Tool in BC](#)

Date: October 21, 2021

Time: 9:00am-10:00am PT

Biological control, or biocontrol, is a very important tool in controlling invasive species. It involves controlling various pests, including invasive plants, by introducing natural enemies.

[Pacific Northwest Citizen Science Summit:](#)

The Washington State University Forest Health Watch Program, Western Invasives Network, The River Mile Network and Washington Invasive Species Council have partnered to convene the first-ever Pacific Northwest Citizen Science Summit. The overall objective of the summit is to connect citizen science practitioners and managers for the purpose of creating partnerships and synergies between projects. By working together, we will be more effective than working alone. The event will be held between 9:00 a.m. and 12:00 p.m. Pacific Standard Time on October 26th and October 27th, 2021 via Zoom webinar.

**November**

[Alaska Invasive Species Workshop](#) November 3-4, 2021; Anchorage, Alaska and virtual

AFS has changed the dates for the 151st [AFS Annual Meeting](#) in Baltimore to November 6-10, 2021, from the original date of August 8-12. Please note that this is a Saturday to Wednesday

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meeting schedule rather than the traditional Sunday to Thursday. This change is being made with the desire to safely host an in-person meeting and to celebrate our 150th anniversary, albeit one year late. The meeting will also include remote participation options and AFS will transition to a full virtual option should the COVID-19 situation make that the appropriate and safe choice. New deadlines will be provided soon for symposium and abstract submissions. Please check the meeting website for updates.

Valuing Water: Economics, Ecology, & Culture 41st International Symposium of the [North American Lake Management Society](#) November 15–18, 2021 • Oklahoma City, Oklahoma

[Aquatic Nuisance Species Task Force Meeting](#)

November 16-18, 2021; Virtual Meeting

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

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

When: November 29th through December 2nd, 2021

### December

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

## 2022

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### 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](mailto:PHotaling@psmfc.org). See <https://www.westernais.org/coordination> for past meeting minutes and presentations.

### February

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

[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.

## 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

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