



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

08/15/22

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### **SPOTLIGHT:**

#### [New web scanning technology helps protect the Great Lakes from invasive species \(7/22/22\)](#)

Great Lakes officials are using tech to scan the web for businesses selling invasive species. The Great Lakes Commission is testing a web-crawler that scans for websites selling invasive species that could harm the Great Lakes. Some of the species are restricted in parts of the Great Lakes. “What’s legal in Texas may not be legal in Michigan,” said Erika Jensen, Executive Director of the Great Lakes Commission.

Once the Great Lakes Detector of Invasive Aquatics in Trade — or GLDIATR — finds harmful species for sale on the web, a letter is sent to the merchant, asking the business not to ship that plant or animal to people living in a Great Lakes state. “Many times they maybe aren’t aware that they’re selling something that poses a risk to the Great Lakes region,” Jensen said, adding that most agree to restrict sales of the invasive species to places in the Great Lakes region.

The only option before this was to have staff do manual Google searches for specific invasive species for sale on the web. “Using this sort of web crawling technology, we can simultaneously search for multiple species in a much shorter period of time,” Jensen said.

In a 30-day trial of the GLDIATR software, it scanned 300,000 webpages and found 200 websites with invasive species for sale. More than 185 non-native aquatic species are already established in the Great Lakes. More are threatening to enter through many means, including as a package left at your doorstep.

## PUBLIC COMMENT

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### [BOEM Seeks Public Comment on Draft Fisheries Mitigation Strategy](#)

As part of its efforts to ensure that offshore renewable energy development occurs in a thoughtful manner that minimizes conflicts with other ocean users, today the Bureau of Ocean Energy Management (BOEM) announced the availability of [draft guidance on mitigating potential impacts of offshore wind development on commercial and recreational fishing](#) and is inviting public review and comment on the draft.

This draft mitigation document is the next step in the development of guidance for offshore wind companies that was begun in the winter of 2021 through a Request for Information from the fishing industry, government agencies, non-government organizations, and the general public, in consultation with the National Marine Fisheries Service (NMFS).

Today's announcement initiates a 60-day public review and **comment period on the draft guidance, which will end at 11:59 p.m. (Eastern) on August 22, 2022.**

"Fishing communities and fisheries stakeholders are critical to our offshore energy development process, and we're looking forward to discussions on this draft guidance," said BOEM Director Amanda Lefton. "We're seeking open and honest conversations focused on finding solutions to potential challenges as we work to provide clean, safe domestic energy for American taxpayers while at the same time providing good-paying jobs and building a U.S. supply chain to support this effort."

The draft guidance provides detailed processes and methodologies to the offshore wind industry and lessees to mitigate impacts to fisheries in the areas of project siting, design, navigation, access, safety, and financial compensation. This guidance will help ensure consistent use of data and methodologies across projects and states and assist lessees and BOEM in the preparation and review of construction and operations plans.

To facilitate comments, BOEM will hold a series of public meetings to discuss the contents of the draft guidance and hear from commercial and recreational fishers and other interested parties firsthand.

While these meetings are focused on obtaining input from the fishing industry and recreational fishers, they are open to the public and anyone can provide comments via [regulations.gov](#)

BOEM will review and consider comments on the draft guidance as it develops final guidance over the summer of 2022.

"We want feedback on the entirety of mitigation framework, from facility design considerations to recommendations on compensatory mitigation, particularly from the people and organizations that this guidance is meant to aid," said BOEM Marine Biologist Brian Hooker.

For more information about the draft guidance, how to register for the fisheries mitigation workshops, and how to submit comments, visit BOEM's website.

## 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 Embarrass Mine Pit in St. Louis County \(8/4/22\)](#)

The Minnesota Department of Natural Resources has confirmed a report of zebra mussels in the Embarrass Mine Pit, also known as the Sabin Mine Pit, near Aurora in St. Louis County. Mining in the Embarrass Mine Pit stopped in 1977. A U.S. Forest Service employee contacted the DNR after finding several zebra mussels while swimming in a public area at the north end of the pit. A DNR invasive species specialist subsequently found adult zebra mussels in several locations in the 155-acre pit. Embarrass Mine Pit is stocked with stream trout and other fish species, making it popular with anglers. It has a maximum depth of 465 feet.

#### [Zebra mussels confirmed in Lake Koronis in Stearns County \(8/1/22\)](#)

The Minnesota Department of Natural Resources has confirmed a report of zebra mussels in Lake Koronis, near Paynesville in Stearns County. On July 8, a fishing guide snagged an adult zebra mussel on a hook and reported it to the DNR. DNR invasive species specialists searched the area and found no other zebra mussels. During a follow-up search, the DNR found one juvenile zebra mussel near the Lake Koronis Regional Park public water access.

#### [Zebra mussels confirmed in Limestone Lake in Wright County \(7/28/22\)](#)

The Minnesota Department of Natural Resources has confirmed a report of zebra mussels in Limestone Lake, near Clearwater in Wright County. A lake property owner reported finding a zebra mussel near his dock. An additional zebra mussel was found during a DNR snorkel search for zebra mussels.

South Dakota:

#### [Zebra Mussels Discovered in Enemy Swim Lake \(7/22/22\)](#)

The South Dakota Department of Game, Fish and Parks (GFP) has confirmed the presence of zebra mussels in Enemy Swim Lake in Day County. "An adult zebra mussel was found near the NeSoDak Beach area in early July," said Area Fisheries Supervisor, Mark Ermer. "Lake residents and GFP spent several weeks looking for additional mussels. One adult - of similar size to the first mussel discovered - was found near the Church Bay boat ramp." Enemy Swim Lake is now considered infested with zebra mussels.

### OTHER AIS

Alaska:

[Carcinus maenas](#) (green crab) was found on the beaches of Metlakatla, AK [[USGS NAS](#)]

Colorado:

[Scardinius erythrophthalmus](#) (Rudd) was found in San Isabel Lake, CO [[USGS NAS](#)]

[Paleosuchus palpebrosus](#) (Dwarf Caiman) was found in Sloan's Lake, Denver, CO [[USGS NAS](#)]

Hawaii:

[\*Tanichthys albonubes\* \(White Cloud Mountain Minnow\)](#) was found in Wailuku River, side channel near Wai'ale Falls [[USGS NAS](#)]

Texas:

[\*Craspedacusta sowerbyi\* \(freshwater jellyfish\)](#) was found in Nott Creek [[USGS NAS](#)]

### **WATCH LIST**

British Columbia: If you spot the European green crab, take a photo — put it back where you found it — and email the information about where you saw it and when to: [AISPACIFIC@dfo-mpo.gc.ca](mailto:AISPACIFIC@dfo-mpo.gc.ca)

WDFW continues to receive numerous reports from the public of native crab species misidentified for invasive European green crabs. While WDFW appreciates the public interest in helping to identify invasive species, these incidents are examples of why WDFW calls on the public to photograph and report suspected European green crabs at <http://wdfw.wa.gov/greencrab> returning the crab in question unharmed to the water where it was found.

[Destructive forest pest, the emerald ash borer, arrives in Oregon; public asked to report sightings](#)

## **DREISSENID MUSSELS**

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[Boater's 'keen eye' kept costly, invasive hitchhiker out of Georgia lake, officials say \(7/29/22\)](#)

A man was excited to take his newly purchased boat out on Georgia's Lake Lanier when he noticed something odd. There were tiny, mysterious mussels attached to the motor of his new boat, according to a news release from the Georgia Department of Natural Resources. He didn't know at the time, but the creatures were zebra mussels — a razor sharp invasive species — and could have cost the state millions of dollars in damage. The man contacted the DNR about the mussels and the agency said it was grateful for the boater's "keen eye" that helped save the lake's ecosystem from serious harm.

[Wyoming reservoir closing to boats due to invasive zebra mussel discovery in South Dakota \(7/27/22\)](#)

The LAK Reservoir east of Newcastle, Wyoming, will be closed to watercraft starting 8 a.m. Monday, Aug. 1 due to the recent discovery of zebra mussels in Pactola Reservoir 27 miles from the Wyoming border in the Black Hills in South Dakota, according to the Wyoming Game and Fish Department. The LAK Reservoir will remain closed to all motorized and non-motorized watercraft until the end of 2022. The decision to close the reservoir was made in consultation with True Ranches, according to Game and Fish. People will still be able to fish from the shore and ice fish in winter.

### [Zebra mussel incident shows humans' role in spread of invasive species \(7/24/22\)](#)

An industrial barge being trucked to the Lower Mainland from Ontario this spring was diverted to a Richmond warehouse. There, provincial conservation officers removed thousands of invasive zebra mussels from the vessel. Many of the mussels were viable and could multiply in B.C. waters. The incident underscores the guilty role we humans play in the introduction and spread of invasive species.

### [Shared Waters \(7/22/22\)](#)

Combing the rocky shoreline of northern Lake Huron, my son plucked a faded white shell from wave-smoothed pebbles. He was excited with his find, but I was not. The shell belonged to a quagga mussel and no matter what body of water you find yourself on this summer, these are not the shells you want your kids collecting. We're on vacation at my family's cabin and, although 1,800 miles separate Kalispell and Michigan's Upper Peninsula, the threat of aquatic invasive species (AIS) isn't limited to the Great Lakes.

### [Wyoming Game and Fish concerned about zebra mussel discovery in South Dakota \(7/21/22\)](#)

The threat of zebra and quagga mussels to Wyoming's waters is closer than ever before. Last week zebra mussels were discovered in Pactola Reservoir, located 13 miles west of Rapid City, South Dakota, in the Black Hills. The reservoir is only 27 miles from the Wyoming border and is a popular boating destination for Wyoming and South Dakota residents.

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

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### [Over 10,000 boats inspected for quagga mussels during Pioneer Day weekend \(7/26/22\)](#)

Statewide, Aquatic Invasive Species technicians with the DWR, Utah State Parks, Arizona Game and Fish Department and the National Park Service inspected 10,192 boats and performed 227 decontaminations from Friday to Monday. During last year's 24th of July weekend, 12,693 inspections were performed statewide, and 297 boats were decontaminated.

### [Meet the Dog with a Nose for Keeping British Columbia Free of Invasive Mussels \(7/25/22\)](#)

At first glance, the boat stopped at a highway checkpoint near Golden, British Columbia, was unremarkable. The smooth, brightly painted hull was scrubbed clean, with nothing to tip off the conservation officers checking the craft for clumps of invasive mussels that anything was amiss. Kilo—the team's invasive species detection dog—wasn't so sure. After a quick sniff and a glance back at his master, the black-haired German shepherd sat down and stared at the boat. Related: [B.C. Day long weekend prompts Okanagan and Similkameen Invasive Species Society to watch for invasive mussels](#)

### [High-tech boat cleaning stations offer solution to aquatic invasive species in Wisconsin \(7/24/22\)](#)

Since the pilot program launched CD3 systems are now in 25 states and 3 provinces in Canada. The equipment has been purchased directly by the Wisconsin Department of Natural Resources Fish and Wildlife division and other national parks. CD3 currently partners with state and local agencies with the common goal to combat and prevent the increase of AIS.

[British Columbia: Big push to stop invasive mussels at the border \(7/22/22\)](#)

Since 2015, B.C. has taken its fight against invasive zebra and quagga mussels to the streets with the Invasive Mussel Defence Program, which seeks to identify and quarantine contaminated water-faring vessels before they even reach the province. At the Okanagan Basin Water Board (OBWB) July meeting, Ministry of Land, Water, and Resource Stewardship's Martina Beck and BC Conservation Officer Dave Webster presented the results and findings gathered in those seven years and took questions on the future of their fight.

[Wyoming Game and Fish Concerned with Number of Aquatic Invasive Species Being Detected \(7/22/22\)](#)

Wyoming aquatic invasive species inspection stations are intercepting an increased number of boats harboring invasive aquatic animals and plants. Close to four months into the 2022 boating season, Wyoming Game and Fish Department has stopped 10 boats with mussels attached, one with a live brook stickleback mixed with live-caught bait and one with curly pondweed. The increased numbers indicate that AIS continues to threaten Wyoming waters, and boaters play a big role in keeping them out.

## **BALLAST WATER/BIOFOULING**

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[New Laws to Restrict how Ships Release Ballast Water into UK Seas \(8/8/22\)](#)

The Merchant Shipping (Control and Management of Ships' Ballast Water and Sediments) Regulations 2022 introduces legislation into UK law controlling the discharge of ships' ballast water into UK waters.

[Harnessing data can tackle the ballast water quality challenge, says Optimarin \(7/26/22\)](#)

Ballasting operations in different parts of the world can be challenging due to wide variations in water quality. And this could make it difficult to achieve compliance with the IMO's so-called D2 standard for ballast water discharges – even with a ballast water treatment system installed. The D2 standard, which will be mandatory for all ships from September 2024 under the IMO's ballast water management convention, specifies the maximum amount of viable marine organisms allowed to be released in ballast water discharges.

But poor water quality at certain ports, such as those with a high level of sediment load, may impede effective ballasting operations needed for compliance and thus prevent ships calling at these ports.

## **MARINE**

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[Dealing with edible invaders: Oregon triples the bag limit for European green crabs \(8/12/22\)](#)

New state regulations now allow recreational crabbers to catch triple the number of invasive green crabs from Oregon's bays and inlets.

The Oregon Fish and Wildlife Commission increased the bag limit of European green crab from 10 to 35 per day. It's part of a concerted effort to eradicate these invasive crustaceans- which are known to compete with native crabs for food.

### [Washington cracks down on invasive European Green Crabs \(7/26/22\)](#)

Invasive European Green Crabs have spread across the Washington coast at an exponential rate in recent years, prompting Gov. Jay Inslee to issue a state of emergency response in January 2022 to combat the infestation.

Related: [Volunteers prove critical in the fight against invasive green crabs \(8/1/22\)](#)

### [Evidence of invasive green crabs found near Metlakatla, the first confirmed sighting in Alaska \(7/22/22\)](#)

An invasive species with the potential to wreak havoc on important commercial and subsistence fisheries has been found in Alaska for the first time. Biologists with Metlakatla Indian Community say they've found the first evidence of European green crabs on Annette Island near the southern tip of Southeast Alaska.

Related: [Metlakatla researchers document Alaska's first live European invasive crabs days after first shells are found](#)

## AQUACULTURE

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### [Protecting cage and pen fisheries from invasive species is a big challenge. \(8/2/22\)](#)

Paul W. Zajicek, executive director of the National Aquaculture Association says the U.S. has marine net pens in state waters (Maine, Hawaii and Washington).

“I have not heard operators speak to nonnative species to the United States or native species moved outside their native range causing damage to physical structure or fish in grow-out. Terminology is a challenge when talking about invasive species,” he said.

### [Nordic Aquafarms gets key permit for California RAS salmon farm \(8/5/22\)](#)

Nordic Aquafarms has received key approvals from the Humboldt County Planning Commission for its planned salmon recirculating aquaculture system facility in Humboldt County, California, U.S.A. The approval came on 4 August, 2022, with the commission voting to certify the project's environmental impact report and approve a coastal development permit. The decision came at the second hearing on the permits in a week, after the first public hearing on 28 July had so much public comment members of the commission decided to postpone its vote.

### [Government of Canada launches engagement towards a plan to transition from open-net pen salmon farming in British Columbia \(7/29/22\)](#)

In order to advance innovation and support the ecological sustainability of the aquaculture sector in British Columbia, Fisheries and Oceans Canada is taking the next step to transition from open-net pen aquaculture in British Columbia coastal waters. The transition will require a strong plan that outlines how to proceed, in a way that greatly minimizes or eliminates risk to wild salmon, while also taking into account social, cultural and economic factors.

Related: [First Nations to shape the future of aquaculture in BC \(7/30/22\)](#)

## FISH

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Clark, K.H., Iwanowicz, D.D., Iwanowicz, L.R. et al. Freshwater unionid mussels threatened by predation of Round Goby (*Neogobius melanostomus*). *Sci Rep* 12, 12859 (2022).  
<https://doi.org/10.1038/s41598-022-16385-y>

Tiberti, R., Buchaca, T., Cruset Tonietti, E. et al. Minnow introductions in mountain lakes result in lower salmonid densities. *Biol Invasions* 24, 2285–2289 (2022).  
<https://doi.org/10.1007/s10530-022-02783-w>

Hedden, S.C., Gido, K.B., Hedden, C.K. et al. Determining resource intake of a nonnative fish highlights potential predatory and competitive interactions. *Biol Invasions* 24, 2351–2364 (2022). <https://doi.org/10.1007/s10530-022-02777-8> [\$]

Brazier, T., Cherif, E., Martin, JF. et al. The influence of native populations' genetic history on the reconstruction of invasion routes: the case of a highly invasive aquatic species. *Biol Invasions* 24, 2399–2420 (2022). <https://doi.org/10.1007/s10530-022-02787-6> [\$]

Coulter, A.A., Prechtel, A.R. & Goforth, R.R. Consistency of mobile and sedentary movement extremes exhibited by an invasive fish, Silver Carp *Hypophthalmichthys molitrix*. *Biol Invasions* 24, 2581–2596 (2022). <https://doi.org/10.1007/s10530-022-02795-6> [\$]

#### [Check Out P448's Sustainable Sneaker Made from Invasive Lionfish Leather \(8/9/22\)](#)

P448 undertakes this mission as part of its commitment to the Lionfish Challenge of 2022, put forth by the Florida Fish & Wildlife Conversation Commission... The P448 Lionfish: Invasive Species Skins Collection sneakers are available now at P448's new Le Bon Marché store in Paris, as well as online via p448.com. Shoes are priced at \$325 per pair.

#### [Michigan DNR finds positives after invasive carp found past electric barriers \(8/8/22\)](#)

The Illinois Department of Natural Resources has confirmed an invasive carp has been caught past the electric barriers in the Chicago-Area Waterway System. However, a Michigan biologist is telling people to back away from the proverbial ledge.

#### [DNA from Asian carp species found in Lake Erie \(7/25/22\)](#)

A targeted sampling of Lake Erie's Presque Isle Bay was ordered by the state of Pennsylvania after federal officials reported the presence of Silver Carp environmental DNA. The Pennsylvania Fish and Boat Commission said it was told of the finding on July 11.

#### [When the invasive fish are native \(7/25/22\)](#)

Exotic fish are a threat to river ecosystems, but what happens when invasive species are native to a territory and have been introduced into waters that are not their original territory? A new study has analyzed the impact the native fish receive from these species, called translocated species, compared to the effects of exotic invasive species, i.e, those that are not native to any basin in the territory.

## AQUATIC PLANTS

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### [New method of eradicating invasive water chestnut tried in Oswego County, NY: drones \(8/8/22\)](#)

For years, they've sprayed a herbicide to kill the plants with the help of air boats. This year, Allen Chase Enterprises is trying a new, more effective method. "I know it's the first time in New York state," Chase said. "I believe it's the first time in the United States that UAVs have been used in this type of an application." In just a few days, the drone and air boats allow Chase and his team to spray 160 acres of water chestnut. They do the treatment once a year.

### [Army Corps to Treat River for Invasive Plant \(7/26/22\)](#)

The United States Army Corps of Engineers' Walla Walla District is preparing to treat Lake Wallula to control the invasive aquatic plant species known as flowering rush.

## FRESHWATER

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Hopper, G.W., Buchanan, J.K., Sánchez González, I. et al. Little clams with big potential: nutrient release by invasive *Corbicula fluminea* can exceed co-occurring freshwater mussel (Unionidae) assemblages. *Biol Invasions* 24, 2529–2545 (2022). <https://doi.org/10.1007/s10530-022-02792-9> [\$]

### [South Dakota lake residents disappointed with state effort to stop aquatic invasive species \(8/12/22\)](#)

The South Dakota Lakes and Streams Association held a forum at Pickerel Lake Friday to discuss the pressing issue of aquatic invasive species in eastern South Dakota lakes. The association includes members from almost a dozen lakes in eastern South Dakota... Leaders of the Lakes and Streams Association stressed that zebra mussels were not the only invasive species to be worried about, but invasive weeds and plants as well.

### [Invasive Australian Redclaw Crayfish Present in Texas \(8/11/22\)](#)

Researchers from the University of Texas Rio Grande Valley recently collected invasive Australian Redclaw Crayfish (*Cherax quadricarinatus*) at the first known site in Texas. From January–February, three specimens were collected at an apartment complex pond that connects to a nearby resaca in the Brownsville area. An earlier 2013 sighting of a female crayfish of this species with several young was also identified on iNaturalist, indicating this species has been present at this location for some time. This is just the second detection of this species in the wild in the United States with the other being in California.

### [Invasive species' success may lie in living fast, dying young \(7/25/22\)](#)

For some species conquering new territory, it might be better to live fast and die young. In a new study, biologists at the University of Iowa looked at why a type of freshwater snail that has invaded ecosystems worldwide has been so successful. Their conclusion: The lineages that were the most successful invaders matured and reproduced more quickly than noninvasive counterparts within the species. The freshwater mud snails studied by the researchers are native

to New Zealand and have spread—likely beginning on commercial ships—to dominate numerous lake and river ecosystems in Asia, North America, Europe, and elsewhere.

### [Escaped Deadly Frogs Might Be Next Murder Hornets for Washington State \(7/23/22\)](#)

I was always under the impression that only boat owners had to worry about "evasive" species being released into Washington State but I discovered that the problem is a lot bigger than you would think. According to the Washington State of Fish and Wildlife, African Clawed Frogs are an invasive species of concern that can eat native amphibians and fish, including baby salmon.

### [Tiny and terrible: Chain of Lakes battles mudsnails \(7/21/22\)](#)

The New Zealand mudsnail, a tiny, but dangerous intruder, is the latest aquatic invasive species to threaten northern Michigan waters. Anyone who boats, paddles or fishes can help curtail the threat by learning and applying basic prevention practices.

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## CLIMATE CHANGE

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### [Invasive species already cost billions. As the climate warms, the damage is expected to get worse \(7/30/22\)](#)

Frogs, lizards and other amphibians and reptiles living in places they don't belong cost the world at least \$17 billion between 1986 and 2020, a group of international researchers concluded in a new study... These invasions are widely expected to grow even worse with climate change as warmer temperatures provide more comfortable homes for species on the move. It's "a massive issue," said Catherine McKenna, former minister of environment and climate change in Canada and chair of a new United Nations task force on the global climate.

Study: Soto, Ismael, Ross N. Cuthbert, Antonín Kouba, César Capinha, Anna Turbelin, Emma J. Hudgins, Christophe Diagne, Franck Courchamp, and Phillip J. Haubrock. "[Global economic costs of herpetofauna invasions.](#)" *Scientific Reports* 12, no. 1 (2022): 1-12.

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## OTHER

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Pringle, H., Siriwardena, G. The potential for analyses of monitoring scheme data to inform about the impacts of invasive on native species. *Biol Invasions* 24, 2457–2476 (2022).

<https://doi.org/10.1007/s10530-022-02785-8> [\$]

### [Driving out invasive species on islands has high success rate and big benefits – study \(8/10/22\)](#)

[New research](#) finds that eradicating non-native rats, cats, rabbits and goats is 88% effective in restoring biodiversity

### [The infamous and invasive ‘murder hornet’ gets a new name \(7/27/22\)](#)

To entomologists, the animal has always been known as *Vespa mandarinia*. But these giant wasps, with their deep brown eyes alongside their svelte gold and brown stripes, have become infamous as the “murder hornets.”

The insects made headlines in 2020, when a few individuals of the species — native to parts of Asia — were found in North America’s Pacific Northwest.

But today, the insects have a new, official name from the Entomological Society of America (ESA): the “northern giant hornet”.

[Florida races to catch invasive snails with the help of sniffer dogs \(7/26/22\)](#)

The giant African land snail, a potential health risk to humans, has once again invaded Florida — and officials are using specially trained dogs to sniff out the invasive species.

Florida’s agriculture department has called the giant African snail “one of the most damaging” mollusk subtypes in the world. Its unusually large size and ability to procreate in vast quantities allows the creature to infiltrate surrounding areas quickly, posing threats to vegetation and infrastructure because of its appetite for at least 500 different plants as well as paint and stucco.

[Teen breeds 1.4 million frogs to create largest 'frog army' in the world, alarms experts \(7/25/22\)](#)

At the advent of the COVID-19 outbreak in 2020, the coronavirus challenge got many idiots licking doorknobs and even toilet bowls.

Fast forward to 2022, in a world battered by the pandemic, supply chain issues, war, and global inflation (with a possible recession), a TikTok user is set to unleash untold horror through his frog army. “It makes me cringe. Instead of helping, (these TikTok users) are actually hurting the animals they’re releasing and all the animals in the environment that they’re releasing them into — it’s creating a vector for disease and invasive species,” Curry said to The Guardian.

Turns out, thinfrog is not the first TikTok user to have unleashed large amounts of invasive species out into the open. In early 2022, one user had released 100 million ladybugs in New York City's Central Park.

Ashander, J., Kroetz, K., Epanchin-Niell, R., Phelps, N. B., Haight, R. G., & Dee, L. E. (2022). [Guiding large-scale management of invasive species using network metrics](#). Nature Sustainability, 1-8. [S]

## OUTREACH AND EDUCATION

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[Okanagan invasive species video builds mussel awareness \(7/29/22\)](#)

## JOBS/GRANTS

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### JOBS

[JOB TITLE: Aquatic Invasive Species Coordinator Lummi Natural Resources Department \(LNR\)](#)

**OPEN: July 21, 2022 CLOSES: August 17, 2022**

**SALARY: (10-11) \$28.85-37.16 /hr. DOE DIVISION: Harvest Management**

**SHIFT: Day DEPARTMENT: Natural Resources**

**LOCATION: Tribal Administration SUPERVISOR: Harvest Manager**

**DURATION: Regular Full Time VACANCIES: 1**

**GRANT ENDS: 09/30/2023**

**JOB SUMMARY:** The Aquatic Invasive Species (AIS) Coordinator is a professional level position that will be assigned projects that are a high priority for the Lummi Natural Resource (LNR) Department. Under the direction of the Fisheries Harvest Manager, the AIS Coordinator will oversee all aspects of LNR's response to the invasion of European green crab (EGC) on Lummi Reservation tidelands and neighboring nearshore areas of the Salish Sea, including work plan development and implementation, budget planning and administration, and grant writing and reporting. This position will be responsible for hiring, oversight and evaluation of up to eight full time employees and up to an additional six seasonal technicians. The AIS Coordinator will be an integral member of the Lummi Nation's EGC Task Force and will coordinate with tribal, state, and federal partners to develop and implement a comprehensive strategy to reduce EGC populations to the lowest extent possible. This position requires experience in project management and administration, and knowledge of aquatic invasive species is desirable. This position is grant funded and may be extended if additional funding is received. This position will receive health and retirement benefits, in addition to paid sick leave and annual leave.

**TO APPLY:** To obtain a Lummi Indian Business Council (LIBC) application go to: <https://www.lummi-nsn.gov/widgets/JobsNow.php> or request by e-mail [libchr@lummi-nsn.gov](mailto:libchr@lummi-nsn.gov) For more information contact the HR front desk (360) 312-2023. Submit LIBC application, cover letter, resume & reference letters no later than 4:30 p.m. on the closing date listed above. If listing degrees or certifications include copies. Mailing Address: 2665 Kwina Road, Bellingham, WA 98226. Human Resource Fax number: 360-380-6991.

### [Idaho Invasive Species Technician 3](#)

**Closing Date: Review of applicants begins immediately**

Location: Post Falls, Idaho

Type: Permanent Full-Time

Salary: \$37,502.40 Annually

This position plans, organizes, and coordinates technical activities for multiple aquatic noxious weeds and invasive species projects and programs; estimates equipment, materials, and manpower; establishes schedules and priorities and evaluates equipment and materials for adequacy, availability, and serviceability. This position also serves as regional/department expert for multimedia sampling, maintenance, operation and calibration of scientific monitoring equipment for multiple media programs and projects; evaluate permits for monitoring requirements; perform data research and analysis; perform related work.

### [North Dakota Parks and Recreation: Natural Resource Specialist Job ID3022698](#)

Location: Bismarck, ND

Salary Range: From 18.50 To 20.00 Hourly

Full/Part Time: Full-Time

Regular/Temporary: Temporary

**Closing Date: 9/2/22**

The Natural Resource Specialist will assist with managing projects on Department lands, including vegetation management through noxious weed and invasive species control, prescribed fires, grasslands restorations, and tree/shrub plantings. Preparation of inventories and assessments reports, plans, presentations. Management of spatial and tabular databases using basic GIS software.

## Wildlife Specialist 510708 Lake Havasu City Phoenix Game and Fish Dept

Full-time

Closing at: Aug 25 2022 at 23:55 MST

This position plans, organizes, analyzes, conducts and coordinates professional fish and wildlife management activities or studies in the office, field or laboratory. Develops and uses best practices in managing the state's fish and wildlife populations and their habitats as they pertain to aquatic invasive species. Reviews recommendations and reports on aquatic wildlife research, habitat evaluations, special studies and/or environmental inventories and estimates. Provides technical advice within specialty areas and is expected to make public presentations. Leads subordinate staff, interns and/or volunteers to complete assigned work projects. May oversee programs and/or projects related to aquatic invasive species.

### GRANTS

The Washington State Recreation and Conservation Office, on behalf of the Washington Department of Fish and Wildlife, is soliciting proposals for interagency agreement funding to support response to the ongoing [European green crab emergency](#). Please visit <https://rco.wa.gov/about-us/employment-and-contracts/> for more information about the available funding for public agencies. (rolling deadline until funds fully allocated)

For more information on European green crab and the state response, please visit

<https://wdfw.wa.gov/species-habitats/invasive/carcinus-maenas>

and <https://wdfw.wa.gov/news/emergency-measures-deployed-control-invasive-european-green-crabs-washington-waters>

### Tahoe Resource Conservation District Seeks Bids for Lake Tahoe Aquatic Invasive Plant Control Projects: RFP for Services And Equipment

Deadline for Proposal Submissions: 8/26/22

We are seeking to develop an implementor referral list to draw from on an on-call basis when specific expertise is needed. The following is an outline of potential services and expertise being requested in this RFP, as well as potential tasks. Please note that the following tasks will require the contractor to discuss and refine work products with Tahoe RCD staff. Depending on responses and qualifications, Tahoe RCD may award multiple contracts under this RFP.

**Transformational Habitat Restoration and Coastal Resilience Grants:** Up to \$85 million in funding is available for habitat restoration and coastal resilience through the [FY2022 NOAA's Transformational Habitat Restoration and Coastal Resilience Grants Notice of Funding Opportunity](#). This funding will support transformational projects that restore habitat for our nation's fisheries and protected resources, while also strengthening the resilience of coastal communities and ecosystems. It will invest in projects that have the greatest potential to provide holistic benefits, through habitat-based approaches that strengthen both ecosystem and community resilience.

Projects selected through this opportunity will help:

- Restore marine, estuarine, coastal, and Great Lakes ecosystems
- Rebuild sustainable fisheries and contribute to the recovery of threatened and endangered species

- Protect the safety and well-being of coastal communities by using natural infrastructure to reduce damage from flooding and storms
- Support the many benefits that healthy habitats provide, such as clean drinking water and industries like boating, fishing, and tourism

NOAA will accept proposals between \$1 million and \$15 million total over the award period. The application deadline is **September 6, 2022**.

[Grant Funding Available for Invasive Plant Management](#) **Due September 9, 2022**

The Richard King Mellon Foundation has just released a Request for Proposal (RFP) to fund projects designed to slow or stop the spread of harmful invasive plants in the United States. This RFP focuses on the following three areas:

- Strengthening Programs Limiting Invasive Plants in the Nursery Trade and Retail Outlets
- Promoting Voluntary Efforts Through Outreach and Education
- Integrating Warming Temperatures and Climate Change into Prevention and Early
- Detection/Rapid Response

Questions? Contact Nikki Pirain (npirain@rkmf.org), Richard King Mellon Foundation.

**Coastal Habitat Restoration and Resilience Grants for Underserved Communities:** Up to \$10 million in funding is available for habitat restoration and resilience awards for underserved communities through [NOAA's FY2022 Coastal Habitat Restoration and Resilience Grants for Underserved Communities Notice of Funding Opportunity](#). Through this funding, NOAA will engage underserved communities in habitat restoration activities that promote resilient ecosystems and communities. This funding will provide capacity for these communities to more fully participate in developing future transformational habitat projects. This capacity is intended to ensure that communities are integral to the visioning and decision-making for coastal habitat restoration projects that affect them, and that they directly benefit from these projects.

Projects selected through this opportunity may include:

- Capacity building activities, including participation in municipal or regional-scale resilience planning, project planning and feasibility studies, stakeholder engagement, and proposal development for future funding.
- Restoration activities, including demonstration projects, engineering and design, permitting, and on-the-ground implementation.

NOAA will accept proposals between \$250,000 to \$500,000 total over the award period. The application deadline is **September 30, 2022**.

[NOAA-OAR-SG-2022-2007452 National Sea Grant Infrastructure Investment and Jobs Act \(IIJA\) Marine Debris Challenge Competition](#) Department of Commerce **Closes September 30, 2022** Eligibility: Sea Grant College Programs, Sea Grant Institutional Programs, and Sea Grant Coherent Area Programs. A Sea Grant program may submit or participate in more than one proposal. Other interested entities must submit proposals in partnership with and through a relevant Sea Grant program.

Proposals may address (but are not limited to) innovative interception and/or removal technologies, reusable systems, microplastics, and/or nanoplastics. Proposals are sought that will build upon and extend existing knowledge and efforts related to marine debris; support broad,

non-proprietary, and innovative research to address critical gaps with respect to marine debris; make that information available to communities and stakeholders; include Sea Grant education and extension professionals, community representatives, government, academic, non-governmental, and industry partners, as appropriate; and proactively incorporate principles of diversity, equity, inclusion, justice, and accessibility at every level of the work. Proposals must include funding for Sea Grant education and/or extension personnel as collaborators. Community, government, academic, non-government, and industry stakeholder participation/involvement in projects is strongly encouraged. Applications DO NOT require the standard 50% non-federal match for Sea Grant projects. However, applicants are strongly encouraged to combine NOAA federal funding with formal matching contributions and informal leverage from a broad range of sources in the public and private sectors. To this end, applicants should note that cost sharing and leverage of other funds is an element considered in the evaluation criteria.

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

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### **Advocacy:**

[Western Governor's Association: Policy Resolution 2022-11, Biosecurity and Invasive Species Management](#): This resolution addresses invasive species management and adds substantial new policy, including: a call to address the destructive relationship between invasive grasses and wildfires; mechanisms to enhance regional invasive species research, planning, and coordination; and recommendations to Congress and federal agencies on improving invasive species management on federal lands and supporting state-led management efforts. [Read, download the resolution.](#)

### **State/Province**

### **Executive**

[USDA to invest \\$15M in innovative projects for climate-smart ag, urban ag and addressing invasive species \(8/12/22\)](#)

The U.S. Department of Agriculture announced today it will invest \$15 million this year for the Conservation Innovation Grants (CIG) Classic program. Through CIG, grantees work to address our nation's water quality, water quantity, air quality, soil health and wildlife habitat challenges, all while supporting agricultural production. This year's funding priorities are climate-smart agriculture, addressing invasive species and conservation in urban agricultural systems.

[David Applegate was sworn in as Director of the U.S. Geological Survey \(USGS\) \(8/15/22\)](#)

WASHINGTON — David Applegate was sworn in as Director of the U.S. Geological Survey (USGS) by Secretary of the Interior Deb Haaland today. David has been serving as USGS's Associate Director for Natural Hazards, exercising the delegated authority of the Director since January 20, 2021. David joined the USGS in 2004 as the first Senior Science Advisor for Earthquake and Geologic Hazards. As the Associate Director for Natural Hazards, he led USGS emergency response activities and oversaw the Coastal and Marine Hazards and Resources, Earthquake Hazards, Global Seismographic Network, Geomagnetism, Landslide Hazards, and Volcano Hazards Programs. He also co-chaired the interagency Science for Disaster Reduction working group.

**Congressional**

[Carper, Capito Lead Senate Passage of Water Resources Development Act \(7/28/22\)](#)

U.S. Senator Tom Carper (D-Del.), Chairman of the Senate Committee on Environment and Public Works, and Senator Shelley Moore Capito (R-W.Va.), Ranking Member of the EPW Committee, today led the Senate to pass the Water Resources Development Act of 2022 (WRDA 2022) by a vote of 93-1.

**Now What:** According to [E&E News PM](#) (7/28/22):

Senators voted 93-1 to pass an amended version of [H.R. 7776](#), the "Water Resources Development Act of 2022," with Republican Sen. Mike Braun of Indiana as the lone opponent. Braun's office didn't immediately comment when asked about his "no" vote. The legislation, which generally passes on a two-year cycle with bipartisan support, is critical for providing a blueprint for the Army Corps of Engineers' work on navigation, flood control and ecosystem restoration. West Virginia Sen. Shelley Moore Capito, the top Republican on the Environment and Public Works Committee, noted the panel unanimously passed the legislation as [S. 4136](#) earlier this year. While the Senate bill largely aligns with a version that passed the House 384-37 vote last month, there are notable differences. Those will be hammered out now that both chambers have cleared their own offerings.

**AIS related language** in both bills can be found in the [May 17, 2022 AIS News](#)

Related: [Portman Praises Senate Passage of Legislation to Combat Invasive Species, Address Coastal Erosion, Protect Water Quality in Great Lakes, Ohio \(7/28/22\)](#)

[Bennet, Daines Introduce Bill to Stop the Spread of Aquatic Invasive Species Across the West \(8/2/22\)](#)

Today, U.S. Senators Michael Bennet (D-Colo.) and Steve Daines (R-Mont.) introduced the Stop the Spread of Invasive Mussels Act, legislation to slow the movement of aquatic invasive species, like zebra and quagga mussels, into Colorado, Montana, and other Western States. “With the American West’s water supply already strained, we have to do everything we can to protect the water resources that are vital to our communities, local economies, and outdoor recreation,” said Bennet. “Our bipartisan legislation will help Colorado keep harmful, invasive mussels out of our water and help to ensure it’s free from contamination.”

“Montana’s rivers and lakes are a key part of our communities and our recreation economy, but aquatic invasive species threaten these thriving ecosystems. It’s critical we empower Montana’s local communities with the tools and resources they need to prevent the spread of aquatic invasive species that have the potential to devastate Montana’s water infrastructure, agriculture, recreation economy, and pristine waterways valued by all Montanans,” said Daines.

Aquatic invasive species pose a significant threat to Western rivers and reservoirs. Once established, these intruders are nearly impossible to eradicate and wreak havoc on crucial water infrastructure, limit recreation opportunities, and harm ecosystems and local economies. As invasive mussels spread across the West, preventative measures – like watercraft inspection and decontamination stations – are key to limiting their spread. The Stop the Spread of Invasive Mussels Act would:

- Strengthen prevention efforts by providing the Bureau of Reclamation (BOR) explicit authority to partner with states and municipalities to fund watercraft inspection and decontamination stations;
- Provide all federal agencies who participate in the Aquatic Nuisance Species Task Force the same authorities to limit the movement of invasive species into and out of U.S. waters, eliminating problematic differences between the various agencies;
- Ensure that all at-risk basins are eligible and prioritized for watercraft inspection and decontamination funding.

The bill text is available [HERE](#). A summary of the bill is available [HERE](#).

According to [E&E Daily](#) (8/4/22):

The bill is noteworthy, in part, because it represents an unusual partnership between Bennet and Daines. Bennet has supported the overall goals of the Biden administration to limit mineral extraction activities on federal lands, while Daines and many of his Republican colleagues have chafed at such restrictions. Daines also recently helped kill, for now, one of Bennet's signature bills. Daines in May joined his Republican colleagues on the Energy and Natural Resources Committee in blocking S. 173, the "Colorado Outdoor Recreation and Economy (CORE) Act," from advancing out of committee. The bill, which Bennet has championed for years, would have extended varying levels of protection to more than 400,000 acres in Colorado, including banning oil and gas drilling in sections of the Thompson Divide. But the threat of zebra and quagga mussels in the

West is real enough to put those differences aside. Daines said in a statement: "It's critical we empower Montana's local communities with the tools and resources they need to prevent the spread of aquatic invasive species that have the potential to devastate Montana's water infrastructure, agriculture, recreation economy, and pristine waterways valued by all Montanans."

#### [RAWA Update: "Bold, Bipartisan" Bill Poised for Senate Vote \(8/8/22\)](#)

Conservationists are increasingly hopeful that a bipartisan bill aimed at helping at-risk wildlife will pass the Senate [[S.2372](#)] and be signed into law in the coming weeks. The Recovering America's Wildlife Act, which passed the House [[H.R.2773](#)] with a bipartisan vote in June, would dedicate \$1.4 billion annually to locally-led efforts to help at-risk wildlife species nationwide.

#### [Biden signs China competition bill to boost U.S. chipmakers \(8/9/22\)](#)

President Joe Biden on Tuesday signed a bipartisan bill [that aims to strengthen U.S. competitiveness with China by investing billions of dollars in domestic semiconductor manufacturing and science research. [H.R. 4346](#) bill information can be found [HERE](#).

**Note:** The bill did not include Section 71102 (Lacey Act Amendments), which was in the earlier House version of the bill ([HR 4521](#), Engrossed in House {02/04/2022}). The Section 71102 language is similar to [S. 626: Lacey Act Amendments of 2021](#). S. 626 bill language, according to its sponsors (Senators (Rubio/Schatz), would address oversights in existing legal authority to prevent the importation of invasive species. The legislation would correct the negative impacts of a 2017 D.C. Circuit Court of Appeals decision that diminished the ability of the U.S. Fish and Wildlife Service to manage the establishment and spread of invasive species in the United States. The bill would also grant authority for emergency designation of species that pose an imminent threat, and authority to prohibit importation of wildlife species not yet in trade until they have been assessed for injuriousness. The [North American Invasive Species Management Association](#) and Association of Fish & Wildlife Agencies\* supports S. 626. According to [AFWA \(3/10/22\)](#) :

While title 18 of the Lacey Act was historically interpreted to prohibit interstate movement of injurious species, this was successfully challenged by the U.S. Association of Reptile Keepers (USARK), resulting in a decision by the D.C. Circuit Court in 2017. The decision held that title 18 only applies to importation of injurious species into the United States, and shipment between the continental states collectively, Hawaii, Puerto Rico, D.C., and other territories—and not shipment between each of the continental states. Since then, AFWA has supported legislative changes that would return implementation of Title 18 to prohibiting all interstate transport.]

S. 626 is opposed by the [Pet Industry Joint Advisory Council \(PIJAC\)](#), [United States Association of Reptile Keepers \(USARK\)](#) and [National Aquaculture Association \(NAA\)](#):

Related: [The Hill: Biden signs chips and science bill into law \(8/9/22\)](#) and [Whitehouse: CHIPS and Science Act Will Lower Costs, Create Jobs, Strengthen Supply Chains, and Counter China \(8/9/22\)](#)

[House approves sweeping climate, tax, health care bill-- “ Inflation Reduction Act “\(8/12/22\)](#)  
House Democrats passed their sweeping tax, climate and health care bill on Friday [[H.R.5376](#)], sending the \$740 billion legislation to President Biden’s desk and securing a significant victory for Democrats less than three months before the midterm elections. The bill, titled the Inflation Reduction Act, passed the House in a 220-207 party-line vote. Four Republicans did not vote, while every Democrat voted in support.

Bill information can be found here: <https://www.democrats.senate.gov/inflation-reduction-act-of-2022>

AIS language in [the bill](#) is as follows:

Page 702 SEC. 60302.

FUNDING FOR THE UNITED STATES FISH AND WILDLIFE SERVICE TO ADDRESS CLIMATE-INDUCED WEATHER EVENTS.

(a) IN GENERAL.—In addition to amounts otherwise available, there is appropriated to the United States Fish and Wildlife Service for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$121,250,000, to remain available until September 30, 2026, to make direct expenditures, award grants, and enter into contracts and cooperative agreements for the purposes of rebuilding and restoring units of the National Wildlife Refuge System and State wildlife management areas, including by—

- (1) addressing the threat of **invasive species**;
- (2) increasing the resiliency and capacity of habitats and infrastructure to withstand climate-induced weather events; and
- (3) reducing the amount of damage caused by climate-induced weather events.

(b) ADMINISTRATIVE COSTS.—In addition to amounts otherwise available, there is appropriated to the United States Fish and Wildlife Service for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$3,750,000, to remain available until September 30, 2026, for necessary administrative expenses associated with carrying out this section.

## APPROPRIATIONS

### [Chairman Leahy Releases Fiscal Year 2023 Senate Appropriations Bills \(7/28/22\)](#)

WASHINGTON (Thursday, July 28, 2022) – Senate Appropriations Committee Chairman Patrick Leahy (D-Vt.) Thursday released the Chairman’s mark of the 12 senate appropriations bills. The nearly \$1.7 trillion fiscal year 2023 appropriations package includes \$653 billion in non-defense discretionary spending, a 10.1 percent increase over fiscal year 2022; \$850 billion in defense discretionary spending, an 8.7 percent increase over fiscal year 2022 and consistent with the bipartisan National Defense Authorization Act (NDAA) passed by the House; and \$118.7 billion for VA medical care, a 22 percent increase over fiscal year 2022. The package also includes \$21 billion in emergency supplemental funding to provide the necessary resources to prepare for the next phase of the COVID-19 pandemic and to address other emerging diseases that pose a significant threat to public health.

AIS Explanatory Statement Language (AKA Report Language) in Commerce (NOAA), Energy and Water Development, Interior, Environment, and Related Agencies is as follows:

### [COMMERCE, JUSTICE, SCIENCE, AND RELATED AGENCIES APPROPRIATIONS BILL](#)

#### **NOAA Oceanic and Atmospheric Research**

Page 50: Aquatic Invasive Species. —The Committee directs NOAA to establish the Coastal Aquatic Invasive Species Mitigation Grant Program and Mitigation Fund, as authorized by the Vessel Incident Discharge Act of 2018 (title XI of Public Law 115–282)

### [ENERGY AND WATER DEVELOPMENT APPROPRIATIONS](#)

#### **Corps of Engineers**

##### **Invasive Carp**

Page 6: The Corps is undertaking multiple efforts to stop invasive carp from reaching the Great Lakes. The Committee notes that Congress authorized a comprehensive suite of measures to counter invasive carp at the Brandon Road Lock and Dam, critical to keeping invasive carp out of the Chicago Area Waterways System, which is the only continuous connection between the Great Lakes and Mississippi River basins. The Committee notes that the Corps’ spend plan for fiscal year 2022 funding provided under the Infrastructure Investment and Jobs Act [IIJA] (Public Law 117–58) included \$225,838,000 to initiate construction of the Brandon Road Lock and Dam, Aquatic Nuisance Species Barrier project. Further, the Committee appreciates that the fiscal year 2023 budget request includes \$47,880,500 for the project to continue this important effort.

As the Corps prioritizes projects, it shall consider critical projects to prevent the spread of invasive species. The Corps is directed to provide quarterly updates to the Committee on the

progress and status of efforts to prevent the further spread of invasive carp, including the Brandon Road Recommended Plan and the second array at the Chicago Sanitary and Ship Canal; the location and density of carp populations; the use of emergency procedures previously authorized by the Congress; and the development, consideration, and implementation of new technological and structural countermeasures; and progress on Preconstruction Engineering and Design [PED] work.

The Corps shall continue to collaborate at levels commensurate with previous years with the U.S. Coast Guard, the U.S. Fish and Wildlife Service, the State of Illinois, and members of the Invasive Carp Regional Coordinating Committee, including identifying navigation protocols that would be beneficial or effective in reducing the risk of vessels inadvertently carrying aquatic invasive species, including invasive carp, through the Brandon Road Lock and Dam in Joliet, Illinois. Any findings of such an evaluation shall be included in the quarterly briefings to the Committees. The Corps is further directed to implement navigation protocols shown to be effective at reducing the risk of entrainment without jeopardizing the safety of vessels and crews. The Corps and other Federal and State agencies are conducting ongoing research on additional potential invasive carp solutions. The Corps is directed to provide to the Committee not later than 30 days after enactment of this act a briefing on such navigation protocols and potential solutions.

## **Construction**

Page 18: Aquatic Plant Control Program. —Of the funding recommended for the Aquatic Plant Control Program, \$1,000,000 shall be for activities for monitoring, surveys, and control of flowering rush and hydrilla. Additionally, \$7,000,000 shall be for nationwide research and development to address invasive aquatic plants, within which the Corps is encouraged to support cost-shared aquatic plant management programs. Finally, **\$16,000,000** shall be for watercraft inspection stations and rapid response as authorized in section 104 of the River and Harbor Act of 1958, subsections (d)(1)(A)(i), (d)(1)(A)(ii), (d)(1)(A)(iii), and (d)(A)(iv); and **\$3,000,000** shall be for related monitoring.

Aquatic Plant Control Program—Connecticut River Basin. —Additional funding of \$6,000,000 is recommended for hydrilla control, research, and demonstration work in the Connecticut River basin. The Corps is encouraged to consider the benefits of establishing a rapid response task force to cover the multistate watershed.

Page 19: Aquatic Plant Control Program—Mississippi River Basin. —The Committee recognizes that the Corps is engaged in a multipronged effort to combat invasive species in our country's waterways and protect the Mississippi River Basin, which is one of the most valued ecosystems in the world. The Committee recommends \$500,000 for the Corps, in partnership with other Federal partners, to continue planning, designing, initial engineering and project

management activities for construction of carp barriers in the Mississippi River Basin and the Tennessee-Tombigbee waterway.

### **Operation And Maintenance**

Page 43: Aquatic Nuisance Control Research.—The additional funding recommended in the Aquatic Nuisance Control Research remaining item is to supplement and advance Corps activities to address Harmful Algal Blooms including: early detection, prevention, and management techniques and procedures to reduce the occurrence and impacts of harmful algal blooms in our Nation’s water resources; work with university partners to develop prediction, avoidance and remediation measures focused on environmental triggers in riverine ecosystems; and to advance state-of-the-art unmanned aerial system-based detection, monitoring, and mapping of invasive aquatic plant species in conjunction with University partners.

Page 49: Of the additional funds recommended in this account for other authorized project purposes, not less than \$2,000,000 shall be for efforts to combat invasive mussels at Corps-owned reservoirs.

### **Renewable Energy**

Page 81: The Committee recommends up to \$15,000,000 for hydropower innovation, testing, and initiatives, including industry-led competitive solicitations for advances turbine demonstrations, improvement of environmental performance, standardized or modular project deployment applications, and advanced manufacturing and supply chain innovations.

The Committee recommends \$10,000,000 to continue research, development, demonstration, and deployment efforts of innovative technologies for fish passage and invasive fish species removal at hydropower facilities. The Committee recommends up to \$5,000,000 for innovative analytics to optimize hydropower applications such as machine learning-based hydrologic forecasts and operations optimization technology advancement

## **INTERIOR, ENVIRONMENT, AND RELATED AGENCIES APPROPRIATIONS**

### **U.S. FISH AND WILDLIFE SERVICE**

Page 25: Within the amount provided for the National Wildlife Refuge System, \$261,152,000 is provided for wildlife and habitat management. Funding for the subsistence program is maintained at \$2,835,000, and \$15,925,000 is continued for invasive species with an emphasis on invasive species Strike Teams to focus on high priority invasive species problems before they cause irreparable harm to the environment. The bill includes an additional \$500,000 to help improve water efficiency at the Quivira National Wildlife Refuge in order to maintain, improve, and replace and upgrade refuge infrastructure per the direction included in the accompanying statement in the Consolidated Appropriations Act, 2021 (Public Law 116–260).

The bill provides \$3,000,000 for the Marine National Monuments, an increase of \$1,000,000 more than the enacted level, and \$1,750,000 for nutria eradication across the Mid-Atlantic region where invasive nutria continue to be found. Refuge Visitor Services are provided \$81,527,000,

an increase of \$4,290,000 to the enacted level. The Urban Wildlife Conservation Program is provided \$8,000,000, an increase of \$2,000,000 to the enacted level and \$4,500,000 below the request.

Page 29: Aquatic Invasive Species. —The Committee recommends \$48,170,000 for aquatic invasive species activities, \$5,457,000 above the enacted level and \$198,000 below the budget request. Within these funds, \$4,338,000 has been maintained to implement section 5(d)(2) of the Lake Tahoe Restoration Act (Public Law 106–506), an increase of \$250,000 above the budget request. \$3,500,000 is provided for mussel eradication. Within the funding provided, \$1,500,000 is for research on hydrilla, eel, and milfoil invasive grasses.

Non-Intrusive Zebra Mussel Elimination. —The Committee recommends \$3,500,000 for zebra mussel eradication. The Committee is aware of the environmental and economic threat posed by invasive quagga and zebra mussels.

Page 30: Invasive Carp. —The Committee recognizes the importance of the work conducted by the Service to combat the serious threat of invasive carp and recommends \$27,000,000 for invasive carp activities, \$5,000,000 more than the enacted level. Overall, this funding is aimed at protecting and enhancing activities in the Great Lakes to prevent invasive carp from entering and establishing in the Great Lakes. Funding provided should also be used to control invasive carp in the Mississippi River and its Sub-basins, including the Upper Mississippi River Sub-basin; Missouri River Sub-basin; Arkansas-Red-White River Sub-basin; Lower Mississippi River Sub-basin; Tennessee Cumberland Sub-basin; and Ohio River Subbasin, including in Kentucky Lake, Lake Barkley, and the Ohio River. The Service should consider the utility of creating a dedicated funding source to increase the intensity and geographic scope of efforts to prevent entry into the Great Lakes and control in areas where invasive carp are currently located. The additional \$5,000,000 is provided for the Service to continue to work with those states with existing cooperative agreements, including non-profits, to develop and implement innovative solutions to reduce invasive carp populations.

The Committee encourages the Service to focus on invasive species removal as it relates to the eradication efforts for invasive Carp. While the Committee recognizes the importance of studying and understanding invasive carp patterns, the Service is encouraged to take action on a strategy that increases the focus on biomass removal. The Committee directs the Service to report back within 60 days of enactment of this act detailing how fiscal year 2021 and fiscal year 2022 funds have been expended, along with a strategy for targeting and removing increased tonnage of invasive Carp in the Ohio, Tennessee, and Cumberland River basins. Additionally, \$4,400,000 is provided for implementation of State Aquatic Nuisance Species management plans to help control the spread of invasive carp.

Invasive Species. —The Committee is aware that work is ongoing in several regions to address the threats posed by aquatic invasive species and directs the Service to continue to make available competitive grant funding for projects to eliminate these destructive, non-native species. Prioritization of Combatting Invasive Plant and Animal Species. —Invasive plant and animal species are a pervasive problem affecting communities across the Nation. Invasives, such as the carp, European Green Crab, nutria, quagga and zebra mussels, emerald ash borer, Eurasian

milfoil, elodea, and the Hemlock Woolly Adelgid threaten our natural resources and wreak havoc on the communities and industries that rely upon them. Preventing invasive species from gaining a foothold in our communities and suppressing established species is of utmost importance. The Committee makes several increases to programs designed to combat invasive species before and after they become a problem. The Committee encourages the Service to support research, monitoring, mitigation, and outreach efforts in all regions.

**European Green Crab.** —The Committee is concerned that over the last 3 years, the population of invasive European Green Crab in the Salish Sea has grown exponentially. This invasive species is highly resistant to rising water temperatures more so than native crab species thus making them more resilient in the face of climate change. This crab species preys on native vegetation which is important habitat for endangered salmon and other species that are critical to uphold Tribal treaty rights, and Puget Sound recovery. The Committee is aware the Service is working with the National Oceanic and Atmospheric Administration [NOAA] on eradication efforts and encourages the Service to remain engaged on these ongoing efforts and provide whatever assistance is necessary to help.

### **National Park Service**

Page 35: Resource Stewardship. —The Committee recommends \$521,364,000 for resource stewardship, an increase of \$139,217,000 to the enacted level and a decrease of \$31,633,000 to the budget request. Within the Resource Stewardship program, \$2,000,000 is provided to address active forest management at national parks, \$5,000,000 is provided to address quagga and zebra mussels, \$800,000 is provided for Cave and Karst Ecosystem Research, and \$400,000 is provided to fund Alaska subsistence activities. Within the funds provided for conservation, an increase of \$58,770,000 will restore capacity in natural and cultural resources and an increase of \$3,500,000 will expand the Service’s socioeconomic monitoring program. A total of \$11,661,000 is provided for Everglades restoration. Funding for the partnership wild and scenic river program is maintained at the fiscal year 2022 level.

### **U.S. Geological Survey**

Page 44: Biological Threats and Invasive Species Research Program. —The bill provides \$45,380,000 for the Biological Threats and Invasive Species Research Program. Of the funds provided, the Committee recommends maintaining funding at the fiscal year 2022 enacted level of \$3,748,000 for White-nose syndrome [WNS] research. The direction found in Senate Report 116–123 is continued for WNS. The Committee recommends \$2,000,000 for research to develop integrated approaches to tick management, including through the use of biodiversity and ecosystem services to lower population counts. This research should be conducted with coordination from several States in a region that is most heavily impacted by the prevalence of ticks and tick-borne disease.

The bill provides \$11,000,000 to address Invasive Carp issues in the Great Lakes and Upper Mississippi River Basin. In order to effectively control the spread of Invasive Carp, the

Committee expects all six sub-basins of the Mississippi River Basin will be included in funding opportunities.

The Committee notes the grave ecological threats and public nuisance posed by many invasive species and directs the Survey to prioritize research, detection, and response efforts on invasive species with extremely high impacts on natural resources, native wildlife populations, and public access and enjoyment, including Burmese Pythons in the Florida Everglades and Big Cypress Swamp, as well as Lionfish in the Gulf of Mexico, Caribbean, and South Atlantic waters.

Page 50: Water Resources Research Act Program. —The bill provides \$18,000,000 for the Water Resources Research Act (Public Law 88–379) Program. Within that amount, \$14,400,000 shall be allocated to support State-based programs and \$3,600,000 shall be allocated to special research topic areas such as Aquatic Invasive Species and PFAS, including at least \$1,500,000 for research on the control and management of aquatic invasive species in the Upper Mississippi River region.

### **Operation of Indian Programs**

Page 59: Agriculture and Range Program. —The bill provides \$39,627,000 for the Agriculture and Range Program, \$1,800,000 above the enacted level and \$4,311,000 below the request. This includes \$12,281,000 for Invasive Species and \$27,346,000 for the Agriculture Program [TPA]

### **Environmental Protection Agency**

Page 90: Great Lakes and Lake Champlain Invasive Species Program. —  
The Committee appreciates the ongoing research to combat aquatic nuisance species transported by commercial shipping and ballast water operations in order to implement the Great Lakes and Lake Champlain Invasive Species Program as authorized by the Vessel Incident Discharge Act (Public Law 115–282). The Committee directs the Agency to use funds from the appropriate Geographic Program to build on these implementation efforts to reduce the risk of introduction of invasive species into the Great Lakes and Lake Champlain. The Agency is directed to brief the Committee on the details of these funding amounts.

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

[UERC 2022 Symposium Recordings](https://pdxscholar.library.pdx.edu/uerc/2022/Presentations) now available: Both full day recordings and recordings of individual presentations of the 2022 Symposium are now available online via PDX Scholar <<https://pdxscholar.library.pdx.edu/uerc/2022/Presentations> Each video includes English captions. Peruse and enjoy!

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

#### **Watercraft Inspection Training**

Coming This Fall: Advanced Decontamination Training:

October 18-19, 2022 Lake Powell Resort & Marina Page, AZ 86040

To Register: Go to <https://form.jotform.com/63037607848968> and complete the registration survey. This will be an in-person "Hands-On" training. To qualify you must have completed WIT II training by a PSMFC certified instructor.

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

#### PNW IPC Citizen Science Trainings

#### August

NAISMA Monthly Webinars: August 17, 2022 @ 1:00 pm - 2:00 pm CDT - [How to Get Your Project Funded A Look into Florida's Research and Outreach Program for Invasive Plant Management](#)

The American Fisheries Society, the AFS Western Division, and the Washington – British Columbia Chapter are excited to host the [152nd AFS Annual Meeting](#), August 21-25, 2022, in Spokane, WA

## September

[Montana Invasive Species Council September 7, 2022](#)

[Oregon Invasive Species Cook-off](#). September 10, 22 Corvallis, OR

[Mississippi River Basin Regional Panel Meeting](#) September 13-15, 2022; Tiptonville, TN

[Washington Invasive Species Council Meeting](#)

September 15, 2022 Olympia, WA; Natural Resources Building, Room 172

[Biofouling Prevention Forum September 20, 2022. \[Virtual Event\]](#) Optimise your fleet: Controlling and preventing biofouling and invasive species.

[Western Regional Panel](#). September 21-23, 2022 in Anchorage, Alaska. The meeting will be held at the Hilton in downtown Anchorage. Three days of presentations, discussions, workshops and a field trip are all being planned. Online option also available.

NAISMA Webinar September 21, 2022 @ 1:00 pm - 2:00 pm CDT - [Utilizing Fire and Grazing as part of an Integrated Prairie Management Program](#)

The health and resilience of prairies relies upon plant/animal diversity and heterogeneous habitat structure that supports that diversity. The Nature Conservancy has been long experimenting with combinations of prescribed fire and cattle grazing that provide varied habitat structure and support high plant diversity at its Platte River Prairies in Nebraska. Our treatments include grazing stocking rates that are comparable with those used by our agricultural neighbors....

## October

[2nd GloFouling R&D Forum on Biofouling Prevention and Management for Maritime Industries: Greener Technologies for Biofouling Management](#). IMO Headquarters, London, UK, 11-14 October 2022

CALMS 37th Annual Conference October 13–14, 2022 // Oakland, California  
[California Lake Management Society](#)

[Oregon Invasive Species Council](#) October 17-18, 2022

NAISMA Webinar: October 19, 2022 @ 1:00 pm - 2:00 pm CDT - [Invasive plant management on non-industrial forest lands in the Panhandle, FL after Hurricane Michael](#)

Hurricane Michael had catastrophic socio-ecological impacts on landowners and forestlands in the Panhandle, Florida. Although scientists predict an increase in the spread of invasive species

after ecological disturbances, there is limited research about the human dimensions of hurricanes, invasive plants, and forest management...

WALPA 35th Annual Conference October 19–21, 2022 // Richland, Washington  
[Washington State Lake Protection Association](#)

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

### November

The [2022 North American Invasive Species Management Association \(NAISMA\) Annual Conference](#), Managing For Resilience co-hosted with the Florida Invasive Species Council (FISC) November 7-10, 2022, Sanibel Harbor Marriott, across from Sanibel Island Ft. Myers, Florida

### December

[Oregon Invasive Species Council](#) December 6, 2022

[2022 Innovations in Invasive Species Management Conference](#)  
Gaylord Opryland Resort and Convention Center in Nashville, TN  
December 13th-16th, 2022  
Primary meeting dates will be December 14th and 15<sup>th</sup>

[Washington Invasive Species Council Meeting](#)  
December 15, 2022 Olympia, WA; Natural Resources Building, Room 172

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