RECOMMENDED READING * PUBLIC COMMENT * NEW SPECIES * WATCH LIST * DREISSENID MUSSELS * BOAT INSPECTION/DECON *

BALLAST WATER/BIOFOULING * MARINE * GREEN CRAB * AQUACULTURE FRESHWATER * FISH * AQUATIC PLANTS * CLIMATE CHANGE * OUTREACH AND EDUCATION * OTHER * JOBS/GRANTS * LEGISLATION * EVENTS

RECOMMENDED READING

Invasive species cost humans \$423bn each year and threaten world's diversity

At least 3,500 harmful invasive species recorded in every region on Earth spread by human

activity, says UN report

Invasive species are costing the world at least \$423bn every year and have become a leading threat to the diversity of life on Earth, according to a UN assessment.

From invasive mice that eat seabird chicks in their nests to non-native grasses that helped fuel and intensify last month's deadly fires in Hawaii, at least 3,500 harmful invasive species have been recorded globally in every region, spread by human travel and trade. Their impact is destructive for humans and wildlife, sometimes causing extinctions and permanently damaging the healthy functioning of an ecosystem.

Leading scientists say the threat posed by invasive species is under appreciated, underestimated and sometimes unacknowledged, with more than 37,000 alien species now known to be introduced around the world and about 200 establishing themselves each year.

While not all will become invasive, experts say there are significant tools to mitigate their spread and impact, protecting and restoring ecosystems in the process.

. . .

<u>The assessment</u>, produced by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), the leading UN body on biodiversity science, was produced by 86 experts – including scientists and Indigenous communities – over four and a half years, and was approved by governments this weekend in Bonn.

PUBLIC COMMENT

<u>US Global Change Research Program: Call for Public Comment: New opportunity to provide input on the first ever National Nature Assessment!</u>

The challenges of climate change and nature loss are interconnected. Yet, the significance of nature in recent patterns of intensifying floods, heat stress, and wildfire is often overlooked. More frequent and extreme floods are the result of climate change and the extensive loss of wetlands that once acted as buffers, reducing some flood impacts. More intense heat waves stem from climate change and the loss of forests' cooling canopies in cities and around farms. These interacting aspects of global change need to be understood and confronted together.

To better understand the full picture of what is happening with nature, USGCRP is undertaking a National Nature Assessment, which will take stock of U.S. lands, waters, wildlife and the benefits they provide to our economy, health, climate, environmental justice, and national security. The Assessment will also look ahead at how nature might change in the future, and what those changes may mean for our economy and our lives.

The National Nature Assessment is in the early stages of development and is anticipated to be released in 2026. As with other USGCRP assessments, the National Nature Assessment will draw on expertise from the Federal Government, Indigenous communities, academia, non-profit organizations, and the private sector. The Assessment team will hold an array of public engagement opportunities to ensure the report answers questions that are important to every American's life, and is informed by the best available evidence.

The opportunity to submit comments on the draft prospectus of the National Nature Assessment (NNA1) is open **Aug. 4 - Sept. 18, 2023**. Please visit our <u>Open Notices</u> page for more information on the call. You may also access the complete NNA1 Draft Prospectus in the <u>Federal Register Notice</u>. To be considered, your comments must be made via the <u>USGCRP Public Contribution System</u> by **11:59 pm EDT, Monday, September 18, 2023**. If you have any questions or process concerns, please contact us: engagement@usgcrp.gov.

I am reaching out to you today to request your help with a horizon scanning project to identify potential new aquatic invasive species to the Southwestern U.S., including the States of Arizona, Colorado, Nevada, New Mexico, and Utah. This project is part of a national, multi-agency effort to expand federal leadership and capacity for early detection and rapid response activities. The results may also be used to inform regional aquatic invasive species prevention priorities. Over the next few months, members of our USFWS Nonnative Aquatic Species Risk Assessment Program will be scanning global and national species occurrence databases to identify nonnative freshwater vertebrate, invertebrate, or plant species that are at risk of arrival and establishment in the region through unintentional transport. We want your regional expertise to help frame the geographic boundaries for the scan and determine prioritization criteria for choosing target taxonomic groups and pathways. The outputs of the project will include a list of species at risk of arrival and establishment through priority pathways, and risk screening reports (including climate matching projections) for a minimum of 20 high-priority species. The time commitment for participants is estimated to be less than five hours between now and early November 2023. If you are interested in providing input on regional horizon scanning priorities, please fill out this contact form by Wednesday, September 6th. We will use the information submitted to schedule a kick-off webinar where we will describe the project and our information needs in more detail.

Instructions on how to join the webinar will be sent out to those expressing interest, and the webinar will be recorded for those unable to join us in real time. If you are not interested in participating but know someone else who might be, please feel free to forward this opportunity to them.

If you have any questions, please contact me or Risk Assessment Program Lead Kate Wyman-Grothem (katherine wyman-grothem@fws.gov). Thank you for your time and consideration.

NEW SPECIES SIGHTINGS

Want to get more new species alerts?
USGS NAS: https://nas.er.usgs.gov/AlertSystem/default.aspx
IMAP INVASIVES: https://www.imapinvasives.org

WATCH LIST

- Alaska: Report your sightings via the <u>ADF&G Invasive Species Reporter</u> or by calling the Invasive Species Hotline: 877-INVASIV (877-468-2748). If you locate invasive green crab on Annette Islands Reserve, you can call 907-886-FISH to make a report.
- British Columbia: Take a photo, put it back where you found it, and email the information about where you saw it and when to: AISPACIoFIC@dfo-mpo.gc.ca
- Washington: Take a photo, put it back where you found it, and report suspect crabs here http://wdfw.wa.gov/greencrab
- Oregon: Retain green crab caught in your gear it is illegal to return them to state waters. They are part of your "Other Shellfish" daily catch limit. Try them as food with the rest of your catch. Do not mutilate or kill any crab while you are crabbing.

5 invasive pests to look out for in WA and how to report sightings

Destructive forest pest, the emerald ash borer, arrives in Oregon; public asked to report sightings Cover your ash: Keep an eye out for the emerald ash borer in Washington

DREISSENID MUSSELS
DICEISSENID MOSSEES

Emerging threat: Zebra mussel infestations in Canada are a threat to Maine waterways! (8/21/23) Invasive zebra mussels have been found within the Saint John River drainage in both Quebec and New Brunswick, with the nearest visual confirmations less than 30 miles away from the Maine/Canada border and even closer potential infestations in the Madawaska River. This places the Saint John River at high risk for infestation and as a potential source for transport on watercraft of zebra mussels into other Maine water bodies. Zebra mussels have not yet been confirmed in any water of the state of Maine but represent a high threat level to the health of our waters, fish, and wildlife.

BOAT INSPECTION/DECON

[B.C.] Province urged to strengthen mussel program (8/18/23) At least eight boats contaminated with invasive mussels have been stopped from entering B.C. lakes so far this year, providing fresh ammunition for a group dedicated to protecting local waterways.

Half the boats carrying invasive mussels into BC heading to Thompson-Okanagan (8/20/23) That's up slightly from the 47% detected in the last two years and a big jump from the 18% headed to the region in 2019.

Opinion: ISDA works hard to protect Idaho from invasive pests (8/19/23) If you've traveled out of state this summer, you probably passed one of the 19 watercraft inspection sites near our borders. This program helps prevent the spread of the costly and difficult-to-destroy zebra and quagga mussels

<u>WDFW</u> busy with boat inspections for mussels (9/5/23) Washington Department of Fish and Wildlife surpassed 36,000 boat inspections this summer in the quest to keep zebra quagga mussels out of waterways and lakes.

CDFW Reminds Boaters Of Invasive Mussels Concerns With Labor Day Weekend Approaching (9/1/23) As another California boating season winds down, boaters are being asked to remember the importance of cleaning, draining and drying their watercraft to combat the spread of invasive quagga and zebra mussels.



Ballast water compliance is possible: the last steps (8/28/23) At MEPC 80, the lack of "approved sampling and analysis methods useable in a PSC context" was noted, and SGS Marine Field Services & Monitoring* believes a clarification would be helpful, as this idea may be misunderstood if it is taken out of context

MARINE
If you can't beat them, eat them: Italians cope with invasion of blue crabs this summer (8/20/23) The crabs are devouring stocks of eels, clams and mussels and wreaking havoc on fishing nets
GREEN (5-SPINED) CRAB
Scientists monitor juvenile European green crab populations in Drayton Harbor, WA (8/13/23) Scientists are keeping a close eye on Drayton Harbor waters after discovering a sizable population of juvenile European green crabs, indicating growth of the highly invasive species.
BOOK: Ecophysiology of the European Green Crab (Carcinus maenas) and Related Species Mechanisms Behind the Success of a Global Invader. 1st Edition - August 18, 2023 Editors: Dirk Weihrauch, Iain Mcgaw
AQUACULTURE
Pink Salmon boom has nothing to do with fish farm closures (8/18/23) World-wide abundance of Pink Salmon being used by activists to push false narratives about aquaculture in British Columbia Related: British Columbia salmon farmers applaud withdrawal of pink returns news segment
Washington state commissioner who banned netpens visits Canada land-based salmon farming partner, touts potential for 'epic change' (8/18/23) Hilary Franz banned all nepten salmon farming in Washington state and is currently pursuing options for land-based salmon farming development.
<u>Can Humanity Save Kelp by Eating the Problem Away? (8/23/23)</u> How aquaculture for urchins could help restore California's kelp ecosystems.
Opinion: Ban irresponsible aquaculture in WA waters and beyond (8/22/23) On the anniversary of this preventable disaster, we say "no more mistakes" when it comes to industrial aquaculture in state and federal waters.
FRESHWATER

Blueprint created for invasive species removal in Everglades (8/17/23) A coordinated series of efforts over ten years to eradicate the spectacled caiman from the western Everglades resulted not only in the removal of 251 of the creatures, which look like a smaller version of an American alligator, it also created a framework for meticulous removal efforts of invasive species in the future.

<u>Invasive species are causing havor in Idaho. These 4 lead the way — one can bite toes off</u> (8/25/23) Idaho Invasive Species, a program run by the Idaho Parks and Recreation Department, sees these invasive species as some of the most troubling in the Gem State. Unless otherwise noted, all information comes from the Idaho Invasive Species program.

<u>CPW looks to rule allowing live import of popular crayfish for eating only (8/26/23)</u> The Colorado agency is considering allowing importing of live red swamp crayfish by businesses or individuals with licenses to do so, but only for human consumption within 72 hours.

Sun'aq Tribe in Kodiak battles spread of invasive crayfish (9/3/23) [video] Signal crayfish, an invasive species, first showed up in Kodiak's Buskin watershed in 2012. Since the, the Tribe has taken a unique approach to solving the problem and enlists the public's help.

Yao Yang et al, Establishment risk of invasive golden mussel in a water diversion project: An assessment framework, Environmental Science and Ecotechnology (2023). DOI: 10.1016/j.ese.2023.100305

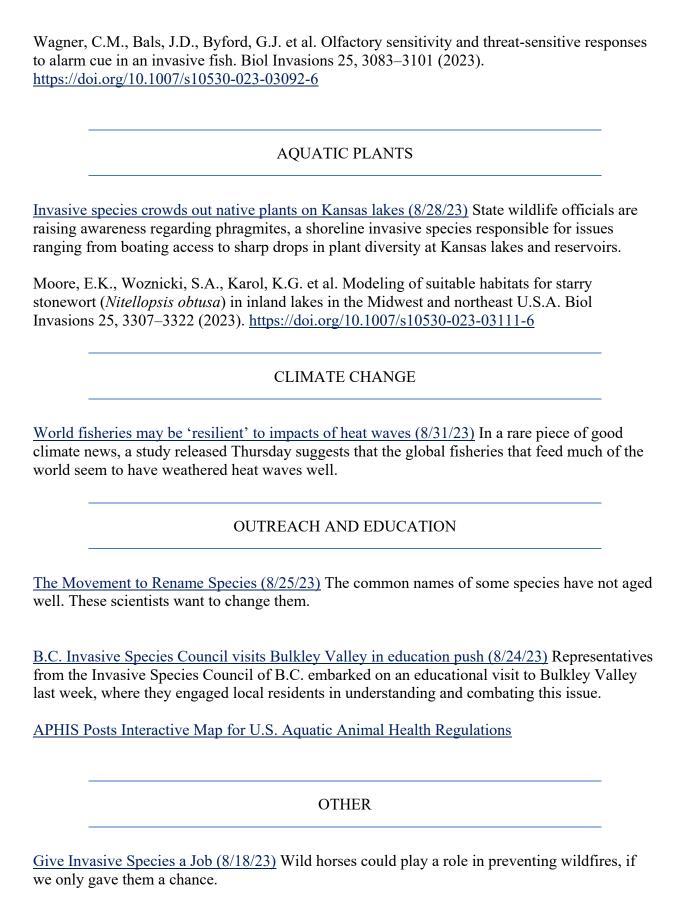


Northern Pike remains top invasive species in Columbia River system (8/26/23) ... because if those pike make it into the anadromous sections of the Columbia, they could do incredible damage to the already struggling salmon and steelhead runs therein.

Bubbles, electricity, designed to deter invasive carp from Lake Michigan (8/27/23) A coalition of organizations is developing an innovative and expensive engineering project at the 96-year-old Brandon Road Lock and Dam on the Des Plaines River south of Chicago to block invasive carp from reaching Lake Michigan.

Bass Population Doubles Below Glen Canyon Dam, Worsening Extinction Risk for Rare Grand Canyon Fish (8/17/23) Federal researchers reported Wednesday that despite last fall's eradication efforts the number of invasive smallmouth bass more than doubled in the Colorado River below Glen Canyon Dam since last year, imperiling the already threatened native humpback chub.

Related: <u>National Park Service to remove invasive species from Colorado River Slough</u> (8/21/23)



An Invasive Hornet Species Is Spotted in the U.S. for the First Time (8/17/23)

A beekeeper in Savannah, Ga., found what turned out to be a yellow-legged hornet. State and federal officials, along with academic experts, are working to eradicate the species.

<u>Put 'pest' animal species on the pill, don't cull them, says scientist (8/27/23)</u> Humane alternatives to killing rampant creatures such as wild boar, deer and grey squirrels are being developed

Woodworth, E., Tian, A., Blair, K. et al. Media myopia distorts public interest in US invasive plants. Biol Invasions 25, 3193–3205 (2023). https://doi.org/10.1007/s10530-023-03101-8

JOBS/GRANTS

New:

- The Office of Personnel Management launched a <u>new portal</u> as part of USAJOBS for students interested in applying for internships at federal agencies, billed as a "one-stop shop" for those interested in exploring a career in government.
- Are you ready to make a contribution to fisheries of the West Coast? Begin your job search and application process by searching for <u>specific jobs at PSMFC</u>

Jobs

<u>Washington Department of Fish and Wildlife: Vessel Incidental Discharge Act (VIDA) Section</u> Lead - Environmental Planner 5 - Perm - *07699-23

Salary \$75,120.00 - \$101,052.00 Annually Location Thurston County – Olympia, WA Job Type Full Time - Permanent Remote Employment Flexible/Hybrid Job Number 2023-07699 Department Dept. of Fish and Wildlife Opening Date 06/12/2023

Closing Date: Continuous

East Kootenay ISC Education & Outreach Coordinator: <u>EKISC Education + Outreach</u> <u>Coordinator Job Description 2023</u> The Education + Outreach Coordinator will be responsible for coordinating education activities and raising public awareness about the impacts of invasive species within the Regional District of East Kootenay (RDEK). They will follow and refine a detailed short- and long-term education work plan, focusing on outreach and education programs. The coordinator will lead a crew of 1-2 summer students in delivering programming on aquatic and terrestrial invasive species identification, impacts, management options, and restoration techniques. The coordinator and crew will represent EKISC at events, set up outreach booths, and educate the public about invasive species identification and management. They will work alongside and report to the Communications Manager to create social media content,

resources and provide consistent messaging. Applications will be accepted until positions are filled.

SSISC Invasive Animals Program Coordinator/Crab Team Coordinator: <u>SSISC EMPLOYMENT OPPORTUNITY - Invasive Animals Program Coordinator</u> The Sea to Sky Invasive Species Council (SSISC) is a non-profit organization that works to minimize the threat of invasive species in the Sea to Sky Corridor. The SSISC is looking for a self-motivated, hardworking individual to coordinate our existing invasive animal monitoring programs, as well as work with the Executive Director to develop, fundraise and potentially expand our invasive animal monitoring programs.

The position will involve volunteer management, fieldwork in marine and aquatic ecosystems throughout the Sea to Sky region, data collection, analysis and mapping; coordination, planning and communication; as well as grant writing, fundraising and program development.

Applications will be accepted until positions are filled.

Invasive Species Specialist

Northwest Michigan Invasive Species Network, Traverse City MI Full time Position Salary 37400-39900

Last Date to Apply 09/11/2023

https://www.HabitatMatters.org/Employment

POSITION SUMMARY

The Invasive Species Specialist works with the Coordinator and Habitat Management Specialist to implement the Michigan Invasive Species Grant Program, which largely funds the position, as well as multiple other grants and subgrants. Primary responsibilities include working with the Habitat Management Specialist to arrange invasive species cost-share treatments, manage the seasonal treatment crew day-to-day, and coordinate the hemlock woolly adelgid (HWA) treatment and survey program throughout the Northwest Michigan Invasive Species Network's (ISN) four-county service area. Other duties include data management, creating maps, working with private land owners, assisting with trainings, assisting with permitting and reporting, and engaging volunteers.

Aquatic Biologist

Manitoba Government

Winnipeg, Manitoba, Canada (On-Site) Aquatic Biologist Regular/Full-Time Manitoba Natural Resources and Northern Development Fisheries, Stewardship and Resource Development

Winnipeg, Manitoba

Advertisement Number: 41667

Salary Range: \$67,242.00 - \$84,772.00 per year

Closing Date: September 17, 2023

Pacific Regional Invasive Species Management Support Service Manager (PRISMSSM)

Audience Position Advertised Internationally (EPAI) This job exists to: Provide leadership and management to PRISMSS and PRISMSS team.

Manage and be accountable for the implementation of the PRISMSS Restoring Island Resilience (RIR) project.

Due Date

Friday 22nd of September 2023 11:59 PM

<u>Assistant Professor – Decision Science/Risk Analysis, Department of Fisheries and Wildlife,</u> Michigan State University Department of Fisheries & Wildlife

Location East Lansing, Michigan

Salary Salary will be commensurate with qualifications.

Position Type Faculty Positions, Science, Technology & Mathematics, Biology & Life Sciences, Other Science & Technology Tenured/Tenured Track Full Time

The Department of Fisheries and Wildlife at Michigan State University invites applications for a full-time, 9-month tenure-track Assistant Professor with a 50% research, 23% teaching, 20% outreach, and 7% leadership/service assignment. The position start date is anticipated to be 8/16/2024. The selected candidate will join the leadership of the Quantitative Fisheries Center (QFC; canr.msu.edu/qfc) and along with other QFC faculty, staff, and students help advance the center's mission of providing research, consulting/outreach, and education services to fishery and other resource management agencies with a focus on the Laurentian Great Lakes basin. The incumbent will be expected to develop an internationally recognized program of research, instruction, and outreach consistent with both the QFC Strategic Plan and Great Lakes Fishery Commission (GLFC) Joint Strategic Plan. Similarly, the candidate will successfully compete for extramural research funds, participate in classroom and online education, and lead outreach and consultation services focused on agency partners throughout the Laurentian Great Lakes.

Spatial Conservation Ecologist Diversity Focus

University of Wisconsin - Madison

Madison, Wisconsin, United States (On-Site)

Apply Now – Closes October 1, 2023

Description

The Spatial Conservation Ecologist (SPE) will work in the Peery lab group on UW-Madison campus in the department of Forest and Wildlife Ecology. They will be responsible for developing a spatial prioritization strategy for managing invasive barred owls in western North America on a project funded by NASAs Ecological Forecasting program. This project is being conducted in close collaboration with the US Fish and Wildlife Service, US Forest Services (USFS) Rocky Mountain Research Station, the USFS Pacific Northwest Research Station, Cornell University, and many other federal and California state agencies.

Grants

We are excited to announce that the U.S. Fish and Wildlife Service, on behalf of the Aquatic Nuisance Species (ANS) Task Force, posted a <u>Notice of Funding Opportunity (F24AS00018, Rapid Response Fund for Aquatic Invasive Species)</u> on August 17, 2023 to request proposals that support the rapid response to a new species introduction within freshwater, estuarine, or marine waters of the United States, including the U.S. territories.

This year, as part of the Bipartisan Infrastructure Law authorization for ecosystem restoration, the Department of the Interior invested \$1 million to establish a pilot Rapid Response Fund for

Aquatic Invasive Species with an additional \$1 million envisioned each year 2024 through 2026 as part of advancing a National Early Detection and Rapid Response Framework. The Rapid Response Fund will be administered within the existing authorities of the U.S. Fish and Wildlife Service's Fish and Aquatic Conservation program and coordinated through the ANS Task Force. In July 2023, the ANS Task Force approved The Model Process: Rapid Response Fund for Aquatic Invasive Species that outlines a structure and process for operation of the Fund. The deadline for the first cycle of proposals is October 18, 2023. After this cycle, we will continue with quarterly review and selections, anticipated to begin on or near November 1, 2023, February 1, 2024, and May 1, 2024. General information about the Fund and a list of Frequently Asked Questions can be found HERE. Additional questions may be directed to Susan Pasko, ANS Task Force Executive Secretary, at susan pasko@fws.gov.

Grant Opportunity: NOAA-NOS-NCCOS-2024-2008101

<u>Social, Cultural and Economic Assessment of Harmful Algal Blooms</u>

Department of Commerce Current Closing Date for Applications: Jan 17, 2024

NOAA-NOS-ORR-2024-2007993

FY24 NOAA Marine Debris Removal under the Bipartisan Infrastructure Law Department of Commerce Current Closing Date for Applications: Feb 23, 2024

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

LEGISLATION	

Advocacy

State/Provincial

Federal: Executive

Federal: Congressional

Sen. Blumenthal pushes for federal funding to combat invasive aquatic species in Connecticut River (8/18/23) Sen. Richard Blumenthal is advocating for new federal funding to combat an invasive aquatic species found in a Connecticut river... "I am working for greater funding to go to the Corps of Engineers, our Army Corps of Engineers, to combat this pernicious menace to our environment, our economy and our ecology," he said.

Alaska senators look to add seafood provisions to next US farm bill (8/18/23) Lisa Murkowski has laid out her wish list for the next US farm bill in separate legislation she introduced in July [\$]

Sen. Michael Bennet talks invasive mussels, water management at Ruedi Reservoir (8/24/23) Colorado's senior U.S. senator Michael Bennet was part of a large contingent of officials who visited Ruedi Reservoir on Thursday. Bennet, a Democrat, headed up the Fryingpan River from Basalt to learn more about the region's water and aquatic wildlife management.

Federal	l: Appropriations		
		EVENTS	
Archive	ed Events:		

Ongoing Training Opportunities:

Watercraft Inspection Training

Virtual (TBA):

- Virtual WIT or Level 1 Inspector Training (2 days 8 am Noon PST) https://www.westernais.org/level-1-inspector-training
- WIT or Level 2 Inspector & Decon Training (3 days 8 am Noon PST) https://www.westernais.org/level-2
- WIT or Level 3 Trainer Training (3 days- 9 am 4pm PST) https://www.westernais.org/le

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TBA

DOI Invasive Species Training Opportunities Spreadsheet

PNW IPC Citizen Science Trainings

<u>InvasivesU – NAISMA</u> - InvasivesU is NAISMA's exclusive online learning library intended to provide professionals, students, and interested individuals with the knowledge and tools necessary to prevent and manage invasive species in North America. NAISMA experts have thoughtfully curated and developed this content, especially for you!

Calendar of Events

September

2023 NW RISCC Invasive Species and Climate Change Symposium

Registration is Open!

When: September 7th & 8th, 2023 Where: Virtually on Zoom Cost: FREE!

Visit our 2023 symposium page to register and for more details.

Montana Invasive Species Council meets September 13 in Missoula followed by MISC Environmental DNA Panel Discussion on September 14th

The 2023 Western Regional Panel Annual Meeting will be September 20-21 in Salt Lake City, Utah.

<u>Association of Fish & Wildlife Agencies 113th Annual Meeting</u> September 24-27, 2023; Calgary, Alberta

October

North American Invasive Species Management Association's 31st Annual Conference October 16-19, 2023; Lincoln, Nebraska

2023 Montana Lakes Conference, October 18-20. The theme for the conference is "Montana Lakes at Risk; Challenges and Opportunities." Whitefish, MT 2023 Delta Invasive Species Symposium, November 30th, Sacramento, CA.

Oregon Aquatic Invasive Species Summit, Salem, OR October 24th, 2023 (8:30am-4:30pm PST) ODFW Field Office in Salem, OR FREE – lunch will be provided <u>Register now!</u>

November

<u>Oregon Invasive Species Council - Business Meeting</u>. In-person. November 8th, Hatfield Marine Science Center, Newport OR

<u>Coastal and Estuarine Research Federation (CERF) 2023:</u> Resilience & Recovery Portland, Oregon, USA | 12–16 November 2023

December

Wild Spotter Invasive Species Ambassador Training Course December 5-7, 2023

This intensive training will include building relationships, partnerships and engaging stakeholders; branding and marketing programs; using innovative tools and technologies; and volunteer citizen-science coordination, recruitment, and retention to meet invasive species management goals and expand local community capacity for action. This gathering will have limited attendance through a merit selection process. Please apply at https://invasivesfree.org. Priority will be given to participants who can demonstrate their commitment to building invasive species management capacity within their community.

2024

May

[Now accepting abstracts through 9/8/23] The <u>23rd International Conference on Aquatic Invasive Species</u> will take place in Halifax, Nova Scotia, Canada, from May 12 – 16, 2024. The conference theme is 'Meeting Challenges with Innovation'. The International Conference on Aquatic Invasive Species addresses emerging freshwater, marine and estuarine AIS issues by involving scientists, policymakers, practitioners, and industry professionals in the presentation of research, and opportunities for collaboration on research and management projects. Stay tuned for more details.

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