



Fish and Shellfish Program NEWSLETTER

March 2024
EPA 820N24002

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<https://www.epa.gov/fish-tech>

Recent Advisory News



Oklahoma Department of Environmental Quality (ODEQ) Updates Fish Consumption Advisories for Some Oklahoma Lakes

On June 21, 2023, the ODEQ updated its list of lakes with consumption advisories for mercury. One Oklahoma lake was added to the list since recommendations were last made in 2022. The lake with a new advisory is Ft. Supply Lake.

For detailed information on the advisory for Ft. Supply Lake and other Oklahoma lakes with consumption advisories for mercury, go to: <https://tinyurl.com/3hhw7us2>.

The consumption advisories are the result of testing done by ODEQ with the cooperation of the Oklahoma Department of Wildlife Conservation. Many of Oklahoma’s lakes have been tested to determine mercury levels. Currently, 73 lakes in the state have specific advisories for mercury.

ODEQ recognized the importance of the sport of fishing in Oklahoma, stating fish provide many benefits that are essential for a healthy diet. Some fish do pose a higher risk for mercury contamination; therefore, ODEQ encourages people to be mindful of the type and amount of fish they eat. ODEQ actively promotes fishing and urges Oklahomans to enjoy the sport while following the suggested guidelines for fish consumption.

The levels of mercury in a lake do not affect the lake’s safety as a source of drinking water or for lake recreation such as swimming and boating.

For detailed information on specific lakes with consumption advisories for mercury, go to: <https://tinyurl.com/3hhw7us2>.

For more information, contact ODEQ at (866)-412-3057 or fishadvisory@deq.ok.gov.

Source: <https://www.deq.ok.gov/2023-news-releases/deq-updates-fish-consumption-advisories-for-some-oklahoma-lakes-5/>



Alabama Department of Public Health issues 2023 Fish Consumption Advisories

On July 12, 2023, the Alabama Department of Public Health (ADPH) reported its annual update of fish consumption advisories based on data collected the preceding fall by the Alabama Department of Environmental Management (ADEM).

ADEM, the Tennessee Valley Authority, and the Alabama Department of Conservation and Natural Resources collected samples of specific fish species for analysis from various waterbodies throughout the state during the fall of 2022 (492 samples; 40 collection stations). ADPH assessed the analytical results to determine whether any of the tested contaminants in the fish may give rise to potential human health effects.

Fish consumption advisories are issued for specific waterbodies and specific species taken from those areas. In reservoirs, advisories apply to waters as far as a boat can be taken upstream in a tributary, that is, to full pool elevations.

Newly issued advisories will be represented as the safe number of meals of that species of fish that can be eaten in a given period of time, such as meals per week, meals per month, or do not eat any. A meal portion consists of 6 ounces of cooked fish or 8 ounces of raw fish.

New and updated consumption advisories issued for the 34 bodies of water tested can be found on the [ADPH Toxicology website](#).

The new advice and complete listings of the posted fish consumption advisories are offered as guidance to individuals who wish to eat fish they catch from various waterbodies throughout the state. No regulations ban the consumption of any of the fish caught within the state, nor is there a risk of an acute toxic episode that could result from consuming any of the fish containing the contaminants for which the state has conducted analyses.

A fish consumption advisory can be issued for one or more specific species of fish within a waterbody or an advisory can be extended to include all fish species within that waterbody. When excess levels of a contaminant are found in a specific species of fish, an advisory is issued for that specific species. For example, if an advisory had been issued for largemouth bass and not for channel catfish, it would be advised that individuals should not eat largemouth bass, but consumption of channel catfish is permissible without endangering health. When excess levels of a contaminant are found in multiple fish species sampled from a specific waterbody, a Do Not Eat Any advisory is issued. Consumption of any fish from a specific waterbody under a Do Not Eat Any advisory may place the consumer at risk for harm from the contaminant.

If a species is listed in the advisory, it is prudent to assume that similar species with similar feeding habits should be consumed with caution. For example, if black crappie is listed and white crappie is not, because they are in the same family, all crappie would fall under the listed advisory.

For more information, contact John Guarisco, Ph.D at John.Guarisco@adph.state.al.us.

Source: <https://www.alabamapublichealth.gov/blog/2023/07/nr-12.html>

EPA News

EPA Requires Toxics Release Inventory Reporting for Seven Additional Per- and Polyfluoroalkyl Substances (PFAS)

On January 9, 2024, EPA announced the automatic addition of seven PFAS to the list of chemicals covered by the Toxics Release Inventory (TRI).

TRI data is reported to EPA annually by facilities in designated industry sectors and federal facilities that manufacture, process, or otherwise use TRI-listed chemicals above set quantities. The data include quantities of such chemicals that were released into the environment or otherwise managed as waste. Information collected through TRI allows communities to learn how facilities in their area are managing listed chemicals. The data collected is [available online](#) and helps to support informed decision-making by companies, government agencies, non-governmental organizations and the public, and advances the Biden-Harris commitments to ensuring environmental justice through improved accountability and transparency for families, workers, and communities across the country.

The addition of these seven PFAS helps to further the [Biden-Harris Administration's commitment](#) to address the impacts of these forever chemicals, and advances [EPA's PFAS Strategic Roadmap](#) to confront the human health and environmental risks of PFAS.

“With these additions to the Toxics Release Inventory, we’ll be collecting data on the release and management of almost 200 PFAS in communities across the country, furthering our efforts to better understand and protect people from these chemicals,” said **Assistant Administrator for the Office of Chemical Safety and Pollution Prevention Michal Freedhoff**. “We’ll also share this information with the public, empowering communities to engage with the facilities using these chemicals to prevent or reduce pollution.”

These seven PFAS were added to the TRI list pursuant to the Fiscal Year 2020 National Defense Authorization Act (NDAA), which provides the framework for the automatic addition of PFAS to TRI each year in response to specified EPA activities involving such PFAS. For TRI Reporting Year 2024 (reporting forms due by July 1, 2025), reporting is required for these seven additional PFAS, bringing the total PFAS subject to TRI reporting to 196.

Addition of PFAS with final toxicity values

The 2020 NDAA includes a provision that automatically adds PFAS to the TRI list upon the Agency’s finalization of a toxicity value. Six PFAS were automatically added for Reporting Year 2024 due to EPA having finalized a toxicity value during 2023. Only these particular salt forms of the acids are added to the list.

- Ammonium perfluorohexanoate; Chemical Abstract Service Registration Number (CASRN) 21615-47-4
- Lithium bis[(trifluoromethyl)sulfonyl] azanide; CASRN 90076-65-6
- Perfluorohexanoic acid (PFHxA); CASRN 307-24-4

- Perfluoropropanoic acid (PFPrA); CASRN 422-64-0
- Sodium perfluorohexanoate; CASRN 2923-26-4
- 1,1,1-Trifluoro-N-[(trifluoromethyl)sulfonyl] methanesulfonamide; CASRN 82113-65-3

Addition of PFAS no longer claimed as confidential business information

Under NDAA section 7321(e), EPA must review confidential business information (CBI) claims before adding a PFAS to the TRI list if the chemical identity is subject to a claim of protection from disclosure under 5 U.S.C. 552(a). EPA previously identified one PFAS for addition to the TRI list based on the NDAA's provision to include specific PFAS upon the NDAA's enactment. However, due to CBI claims related to its identity, this PFAS was not added to the TRI list at that time. The identity of this chemical was subsequently declassified in an update to the [Toxic Substances Control Act Inventory](#) in February 2023. Because its identity is no longer confidential, the following chemical was added to the TRI list:

- Betaines, dimethyl(.gamma.-.omega.-perfluoro-.gamma.-hydro-C8-18-alkyl); CASRN 2816091-53-7

As of January 1, 2024, facilities that are subject to reporting requirements for these chemicals should begin tracking their activities involving these PFAS as required by Section 313 of the Emergency Planning and Community Right-to-Know Act. Reporting forms will be due by July 1, 2025.

These seven newly added PFAS, along with the previous 189 TRI-listed PFAS, are also subject to [EPA's action in October 2023 to classify all PFAS subject to TRI reporting as chemicals of special concern](#). Among other impacts, this removes the use of a reporting exemption that allowed facilities to avoid reporting information on PFAS when those chemicals were used in small concentrations.

[Learn more about the addition of these PFAS to the Toxics Release Inventory.](#)

Source: <https://www.epa.gov/newsreleases/epa-requires-toxics-release-inventory-reporting-seven-additional-pfas>

Availability of the Draft IRIS Toxicological Review of Perfluorononanoic Acid [PFNA, CASRN 375-95-1] and Related Salts

On March 7, 2024, the Environmental Protection Agency (EPA) announced a 60-day public comment period associated with the release of the draft Integrated Risk Information System (IRIS) Toxicological Review of Perfluorononanoic Acid [PFNA, CASRN 375-95-1] and Related Salts. The draft document was prepared by the Center for Public Health and Environmental Assessment (CPHEA) within EPA's Office of Research and Development (ORD). EPA is releasing this draft IRIS assessment for public comment in advance of a contract-led peer review. Public comments received will be provided to the external peer reviewers. ERG, a contractor to EPA, will convene a public meeting to discuss the draft report with the public during Step 4 of the IRIS Process. The external peer reviewers will consider public comments submitted in response to this notice and comments provided at a future public peer review meeting. EPA will consider all comments received when revising the document post-

peer review. This draft assessment is not final as described in EPA's information quality guidelines, and it does not represent, and should not be construed to represent Agency policy or views.

DATES:

The 60-day public comment period began March 7, 2024 and ends May 6, 2024. Comments must be received on or before May 6, 2024.

ADDRESSES:

The IRIS Toxicological Review of Perfluorononanoic Acid [PFNA, CASRN 375-95-1] and Related Salts will be available via the internet on the *IRIS* website at <https://www.epa.gov/iris/iris-recent-additions> and in the public docket at <http://www.regulations.gov>, Docket ID No. EPA-HQ-ORD-2021-0560.

FOR FURTHER INFORMATION CONTACT:

For information on the public comment period, contact the ORD Docket at the EPA Headquarters Docket Center; telephone: 202-566-1752; facsimile: 202-566-9744; or email: Docket_ORD@epa.gov.

For technical information on the IRIS Toxicological Review of Perfluorononanoic Acid PFNA, CASRN 375-95-1], contact Mr. Dahnish Shams, CPHEA; email: shams.dahnish@epa.gov. The IRIS Program will provide updates through the IRIS website (<https://www.epa.gov/iris>) and via EPA's IRIS listserv. To register for the IRIS listserv, visit the IRIS website (<https://www.epa.gov/iris>) or visit <https://www.epa.gov/iris/forms/staying-connected-integrated-risk-information-system#connect>.

For questions about the peer review, please contact: Laurie Waite, ERG, by email at peerreview@erg.com (subject line: EPA PFAS assessments peer review); or by phone: (781) 674-7362.

Source: <https://www.federalregister.gov/documents/2024/03/07/2024-04789/availability-of-the-draft-iris-toxicological-review-of-perfluorononanoic-acid-pfna-casrn-375-95-1>

Peer Review Meeting of the Draft PFHxS IRIS Assessment

ERG, a contractor for EPA, convened an external peer review meeting to discuss the draft IRIS Toxicological Review of Perfluorohexanesulfonic Acid (PFHxS) and Related Salts. The draft PFHxS assessment will be released for public comment after a contract-led peer review embargo is over. The peer review meeting organized by ERG took place virtually via Zoom on February 26 from 10 a.m. to 4 p.m. ET, February 27 from 10 a.m. to 4 p.m., and March 1 from 11 a.m. to 2 p.m. ET.

For more information on the external peer review meeting, visit the [ERG meeting webpage](#) and the [EPA IRIS website](#).

Clean Water Act (CWA) Analytical Methods for Per- and Polyfluorinated Alkyl Substances: Method 1633 for 40 PFAS Compounds

On January 31, 2024, EPA's Office of Water, in partnership with the Department of Defense's (DoD) Strategic Environmental Research and Development Program, published Method 1633, "Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS," a method to test for 40 PFAS compounds in wastewater, surface water, groundwater, soil, biosolids, sediment, landfill leachate, and fish tissue. This method can be used in various applications, including National Pollutant Discharge Elimination System (NPDES) permits. The method will support NPDES implementation by providing a consistent PFAS method that has been tested in a wide variety of wastewaters and contains all the required quality control procedures for the CWA. While the method is not nationally required for CWA compliance monitoring until the EPA has promulgated it through rulemaking, the EPA recommends it now for use in individual permits.



Photo of a scientist utilizing CWA analytical methods. (Photo courtesy of EPA Office of Water).

While EPA Method 1633 is capable of measuring 40 of the most common PFAS contaminants, there are thousands more PFAS in use or already in the environment. To fill this analytical need, the Clean Water Act Methods Program, in collaboration with ASTM International, developed EPA Method 1621 to measure Adsorbable Organic Fluorine (AOF) in wastewater. AOF is not typically found in nature and combined with characterization data about the source of a particular wastewater, AOF analysis is a useful surrogate measurement to identify total PFAS in environmental samples, offering a valuable screening tool for use together with Method 1633. The development and completion of these two methods is a critical step towards addressing PFAS discharges from industrial sources; data collected using these high-quality methods will inform forthcoming CWA regulations of industrial dischargers, including PFAS Manufacturers and Metal Finishers.

For more information, contact Adrian Hanley, Analytical Methods Team Leader, Office of Science and Technology at hanley.adrian@epa.gov.

Source: <https://www.epa.gov/cwa-methods/cwa-analytical-methods-and-polyfluorinated-alkyl-substances-pfas#method-1633>

Other News

Governor Newsom Announces Agreement to Reopen Yuba River to Salmon and Launch River Restoration

Local, state and federal officials announced an agreement to restore the Yuba River and reopen the waterway to salmon and sturgeon for the first time in more than 100 years

At the launch of one of the most ambitious watershed recovery efforts in California on May 16, 2023, Governor Gavin Newsom joined state, federal and local officials to announce a landmark framework agreement that will reopen miles of habitat to multiple native fish species. The agreement sets the stage for the return of imperiled spring-run Chinook salmon to their native habitat in the North Yuba River for the first time in more than 100 years.



Adult green sturgeon. (Photo courtesy of CDFW by Mike Healey).

This collaboration between the California Department of

Fish and Wildlife (CDFW), Yuba Water Agency and the federal National Oceanic and Atmospheric Administration (NOAA) Fisheries agency resolves years of conflict and includes major actions to help recover imperiled fish:

- **Building a new fishway** – a channel resembling a natural river that salmon, steelhead, sturgeon and lamprey can follow to get around the U.S. Army Corps of Engineers' Daguerre Point Dam to reach over 10 miles of healthy spawning habitat.
- **Building a modernized water diversion** at Daguerre Point Dam to supply irrigation water south of the lower Yuba River that will protect fish passing the intake.
- **Launching a comprehensive reintroduction program** to support recovery efforts of spring-run Chinook salmon with a goal of returning them to their original habitat in the North Yuba River above New Bullards Bar Reservoir as soon as 2025.

The agreement will restore unimpeded access for fish to the full reach of the Yuba River from the confluence with the Feather River up to Englebright Dam for the first time in nearly a century. Last year, California invested \$100 million to support salmon and \$30 million of that will go to this project on the Yuba River.

What Governor Newsom said: "California is taking action to restore vital habitats and return fish to their historic home – turning the page on outdated water infrastructure that has blocked passage for these fish for over a century. Together with historic investments, we're restoring crucial waterways across our state and laying the groundwork for a salmon resurgence that's not only good for fish, but a lifeline for the communities and Native peoples who rely on a healthy fish population."

The Newsom Administration has long fought to protect California's iconic salmon runs and their needed habitat, even through significant obstacles faced by the species year after year. California has taken unprecedented action to restore connectivity, invest in infrastructure improvements and reopen miles of cold water habitat that has been blocked to the fish for decades.

1. **America's Largest River Restoration:** Through many years of effort alongside the Karuk and Yurok Tribes, the first of four hydroelectric dams on the Klamath River is scheduled to be removed this fall as the largest river restoration project in American history begins. This project, 20 years in the making, received final approval in December 2022. It will revitalize nearly 400 miles of historical habitat to salmon and steelhead that has been blocked for almost 100 years.
2. **Returning Fish Home and Prioritizing Native Habitats:** Earlier this month, CDFW announced an historic co-management agreement with the Winnemem Wintu Tribe for continued work to return salmon to the McCloud River. This follows efforts from July 2022 when the Tribe and federal partners returned approximately 20,000 fertilized endangered winter-run Chinook salmon eggs to the McCloud upstream of Shasta Reservoir for the first time since the construction of the Shasta Dam in the 1940s. Last year, about 300 threatened spring-run Chinook salmon were moved to native habitat above Eagle Canyon Dam on North Fork Battle Creek, about 20 miles east of Cottonwood, in Shasta and Tehama counties for the first time in more than 110 years. CDFW also moved threatened spring-run Chinook to Clear Creek, in Shasta County. Colder water temperatures in these waterways better support spawning and help their eggs survive during drought conditions.
3. **Creating Connectivity and Modernizing Infrastructure:** The state is utilizing a new method of DNA-based tagging, called Parentage-Based Tagging, that allows salmon fry to be released at half the age and half the size of typical, hatchery-released salmon smolts. California is also working to modernize its hatcheries to be climate resilient and protect biodiversity, with over \$84 million invested in the last several years to replace aging vehicles in fish planting fleets, modernize hauling trucks, replace egg incubators and sorting machines, and install automated fish counters and water chillers, among other improvements. California increased fall-run Chinook salmon hatchery production by 1.75 million smolts on the Feather River, increased fall-run Chinook salmon production by 500,000 for early release on the American River, and increased fall-run Chinook salmon production by 500,000 fish on the Mokelumne River, while transporting over 19 million hatchery raised juvenile fall-run Chinook salmon to the San Pablo Bay, San Francisco Bay and seaside net pens in 2021 and 2022 to give salmon a better chance in their migration.

Investing in Critical Habitat: The state recently announced significant investments of approximately \$36 million into critical habitat, climate refugia and salmon strongholds, wildlife corridors, and mountain meadows and wetlands restoration. This followed the announcement of another \$22.5 million to benefit salmon and other critical habitat projects statewide, including the largest project for riparian habitat restoration on the middle Trinity River. In February, the Wildlife Conservation Board approved approximately \$51.83 million in grants to help restore and protect fish and wildlife habitat throughout California. Some of the 25 approved projects will benefit fish and wildlife, including some endangered species, while others will provide public access to important natural resources.

For more information, contact the Office of Governor Newsom at (916) 445-2841.

Source: <https://www.gov.ca.gov/2023/05/16/governor-newsom-announces-agreement-to-reopen-yuba-river-to-salmon-and-launch-river-restoration/>

How National Oceanic and Atmospheric Administration Fisheries Helps Get American Seafood into American Diets

A long-standing federal program presents a valuable opportunity to help American fisheries.

On October 24, 2023, NOAA Fisheries, reported on how a thriving, sustainable seafood sector is good for the economy, good for the environment, and good for people who eat seafood. NOAA also recognized that the U.S. seafood industry faces unprecedented challenges from a changing climate, a recent pandemic, and ongoing disruptions to global markets.

NOAA reaffirmed its commitment to improving the resiliency of the U.S. seafood industry with the October release of the National Seafood Strategy. The strategy outlines NOAA goals for this effort over the next five years, including fostering access to domestic markets for U.S. seafood. Getting more American seafood into American diets is a win-win solution. Supplying sustainable, nutritious seafood to feed our nation supports the financial viability of our fishing and aquaculture industries.

Partnering Across Federal Agencies

One way to meet the goals of the National Seafood Strategy is for NOAA to work with federal partners, like the U.S. Department of Agriculture (USDA). The Commodity Procurement Program is a long-standing USDA program that provides a valuable avenue to share the bounty of American fisheries around the country.

Since the 1930s, the U.S. Secretary of Agriculture has had the authority to purchase excess agricultural commodities and donate them to Americans in need. These purchases stabilize commodity prices by reducing excess supply in the market. The food donations support critical nutrition programs around the nation that feed children, students, seniors, long-term care residents, and food bank patrons.

While the USDA is traditionally concerned with land-based meat and produce, their purchasing authority can extend to wild-caught seafood as well. That's where NOAA Fisheries plays a key role. "The USDA relies on our expertise when it comes to seafood," said Steve Wilson, Director of the Seafood Inspection Program. "Our program provides critical advice in crafting calls for proposals, specifications for acceptable seafood products, and inspection services."

NOAA Fisheries' Unique Expertise

Food purchased for these nutrition programs—whether produce, meat, or seafood—must meet several criteria. First, of course, it must be safe. It must also be high quality. Because it will go to feed communities around the country, it must be easily transportable and storable. It should be easy for cafeterias to prepare at scale, and broadly appealing to kids (and adult recipients).

Seafood Inspection Program staff advises the USDA as they craft their solicitations for bids, on everything from the form of the seafood product (a 1-pound can? A 4-ounce, 1-pound, or 2-pound frozen filet?) to the quantities that American seafood companies might be capable of supplying. This specialized expertise that NOAA provides makes the seafood purchases possible.

While the USDA has their own meat and produce inspectors, they rely on NOAA Fisheries to inspect seafood deliveries. NOAA's seafood inspectors are authorized to grade seafood products and certify the highest quality as "Grade A." When contractors deliver the seafood products to the specified distribution centers, NOAA inspection staff are on hand to ensure quality and integrity.

Responding to Global Challenges

This partnership between NOAA and USDA facilitates a program that has real benefits for American fisheries. In recent years, the Biden-Harris Administration has encouraged the use of the Commodity Procurement Program to support the seafood industry through difficult times.

"U.S. fisheries and the American seafood industry were dealt a heavy blow," Secretary of Agriculture Tom Vilsack explained in May of 2021, at the height of the COVID-19 pandemic. As part of the pandemic response, USDA announced "the largest single seafood purchase in the Department's history." That initiative included more than \$70 million for pollock, shrimp, whiting, rockfish, and salmon products—and it marked the beginning of an ongoing strategy.

Since then, these seafood purchases have continued and expanded. This past July, USDA awarded contracts totalling more than \$118 million for frozen pollock, haddock, rockfish, whiting, and salmon filets, packaged salad shrimp, and canned sockeye salmon.



Shrimp sample for analysis at NOAA's National Seafood Inspection Lab in Pascagoula, Mississippi. NOAA Fisheries' seafood inspectors conduct the necessary inspection and grading of seafood purchased through USDA's Commodity Procurement Program. *(Photo courtesy of NOAA Fisheries).*



(Photo courtesy of NOAA Fisheries).

Building on Success

Looking forward, NOAA sees opportunities to build on this momentum. NOAA Seafood Inspection Program and USDA are working with the seafood industry to move toward more Grade A-certified seafood that would be eligible for commodities purchasing for food and nutrition programs. Ultimately, more Grade A certifications are better for industry and for consumers.

NOAA is also working closely with U.S. stakeholders to expand the list of species and seafood products that qualify for the Commodity Procurement Program.

“Because these nutrition programs provide the seafood at no cost to students and communities in need,” Wilson said, “they increase the equity of access to healthy domestic seafood. In the long term, this creates and expands the market for domestic seafood, bolstering the sustainability of the industry.” And that’s a win for everyone.

Source: <https://www.fisheries.noaa.gov/feature-story/how-noaa-fisheries-helps-get-american-seafood-american-diets>

Recently Awarded Research

10 Projects Will Support Urban Fish Restoration around Portland, Oregon

With \$3.8 million in funding from NOAA’s Office of Habitat Conservation, the Clackamas Partnership is removing fish passage barriers and restoring habitat to benefit threatened Chinook salmon and steelhead.

Endangered Species Act-listed species of salmon and trout, including the [Upper Willamette River Chinook](#) and [steelhead](#), migrate through Oregon’s most populated areas on their way to spawning grounds. Their safe passage through urban waterways is key to their survival.

On February 1, 2024, NOAA Fisheries announced that over the next 3 years, the [Clackamas Partnership](#) will remove barriers and restore habitat at 10 sites around the Portland Metro area. NOAA’s [Office of Habitat Conservation](#) awarded \$3.8 million to the partnership under the [Bipartisan Infrastructure Law and Inflation Reduction Act](#).

“Getting the NOAA funding has been critical in scaling up our impact,” says Daniel Newberry, Director of [Johnson Creek Watershed Council](#), a member of the partnership. “We think we’re going to have a really measurable benefit to listed fish in this area.”

Many of the projects involve creating or restoring habitat for juvenile fish, which spend a year or more eating and growing in fresh water before heading out to the ocean. The bigger and stronger juveniles grow in streams, the better their chances of survival at sea.

“Tributaries of the Willamette River, like the Clackamas River and Johnson Creek, have pretty rapid flows in the winter and spring and juvenile fish need calm, cool side channels to pull over and eat and grow and not get eaten,”

says Lauren Senkyr, Marine Habitat Resource Specialist for NOAA. “Unfortunately many of the side channels have been lost over time due to development.”

In addition to helping fish, some projects will also protect community members from flood risks. “One of the fish passage barriers that will be replaced—a culvert—runs under the only access road for a couple of residents in the area,” says Senkyr. “If the culvert is blocked during high winter flows, the road could wash out and cut off those residents from emergency services.”

With much of the work occurring near urban areas, project partners are making a major effort to engage the community in the restoration process. “We are creating videos of each of the 10 projects so we can show people what restoration really means,” says Newberry. “Because there is a significant Spanish-speaking population in our area, we contracted with a Latino-owned business to produce the videos in both English and Spanish.”

“This award is touching diverse populations—including tribal members—and providing jobs, internships, and educational opportunities to community members,” says Newberry. “The educational programs in particular are helping to create a stewardship ethic among the young people. They’re showing people ways, big and small, that they can make a difference in their watershed.”

The [project partners](#) are also planning to sponsor river rafting trips that will stop at restoration sites. These trips will help young people from underserved communities learn about river restoration in a fun way.

“In a lot of urban areas in Oregon, people think of salmon as something that exists up in Alaska or some other very pristine environment,” says Newberry. “They are surprised but really excited when we tell them there’s salmon in their watershed. It really spurs people to learn more about salmon ecology and about the importance of restoring fish.”

NOAA’s Office of Habitat Conservation is reinvigorating efforts to restore threatened salmon and trout species in Oregon’s Willamette River watershed. This is one of [four restoration projects](#) being funded under the Bipartisan Infrastructure Law and Inflation Reduction Act.

For more information, contact NOAA Office of Habitat Conservation at (301) 427-8600.

Source: <https://www.fisheries.noaa.gov/feature-story/10-projects-will-support-urban-fish-restoration-around-portland-oregon>

Tech and Tools

National Oceanic and Atmospheric Administration Fisheries and Partners Announce Improvements to Recreational Fishing Data Collection Ahead of Red Snapper Season

Alabama's Snapper Check program gets an upgrade through collaboration with NOAA Fisheries and Gulf Fisheries Information Network (GulfFIN).

With red snapper season approaching, on May 23, 2023 field samplers with the Alabama Department of Conservation and Natural Resources (ADCNR) deployed tablet-based data collection and submission as part of the state's [Snapper Check](#) program.

“This switch to tablet-based data collection from paper streamlines our process and results in the availability of more timely data,” said Kevin Anson, ADCNR, Marine Resources Division, chief marine biologist. “This also improves our quality control process, which leads to better data. Samplers will be able to more efficiently collect information from recreational anglers, which, in turn, will increase the number of interviews conducted per assignment.”

Snapper Check collects catch and effort information from owners and operators of state for-hire vessels and private recreational fishing vessels who possess red snapper, gray triggerfish, or greater amberjack. It consists of two complementary components:

- Electronic reporting system in which anglers provide catch and harvest information for these species after each fishing trip
- Dockside survey to gather trip information, as well as length and weight measurements from landed fish

NOAA Fisheries provided funding for development, testing, and implementation of the tablet-based dockside interviews. The effort received additional support from the [Gulf States Marine Fisheries Commission's Fisheries Information Network](#).

NOAA Fisheries encourages the consideration and use of [electronic technologies](#) to complement or improve fishery-dependent data collection programs, where applicable.

“We are committed to working with our partners to develop sound electronic reporting tools and advance the appropriate use of electronic reporting technologies to improve our program,” said Katherine Papacostas, NOAA Fisheries, [Marine Recreational Information Program](#) (MRIP) branch chief.

A key part of MRIP is the support provided to partners. “We work closely with our state and regional partners to help them meet data collection needs within their unique recreational fisheries,” said Papacostas. “This includes access to technical resources, statistical support, and funding.”

In 2018, NOAA Fisheries certified the design of Alabama's Snapper Check. That means it was found to be a statistically valid approach for monitoring of red snapper catches with respect to annual catch limits. As part of the [certification process](#), NOAA Fisheries provided technical support and facilitated a peer review with expert consultants, including independent academia and statistician professionals. Certification is the first critical step for the potential incorporation of any new survey data and estimates into the federal fisheries assessment and management process. Snapper Check is just one of several Gulf of Mexico surveys developed by the states with assistance from NOAA Fisheries.

"Sustainable fishing starts with the data," said Gregg Bray, GulfFIN program coordinator. "We are continuously working with our partners to find ways to advance and streamline our data collection methods. The successful implementation of this project underscores the importance of our federal, regional, and state partners working together to evaluate and improve recreational fishing data."

For more information, contact NOAA Fisheries Office of Science and Technology at (301) 427-8100.

Source: <https://www.fisheries.noaa.gov/feature-story/noaa-fisheries-and-partners-announce-improvements-recreational-fishing-data-collection>

Recent Publications

Journal Articles

The list below provides a selection of research articles.

- ▶ [Quantification of PFAS in Oyster Tissue Using a Rapid Quechers Extraction Followed by UPLC-MS/MS Analysis.](#)
Campbell, K.S., J.E. Brandt, S.A. Ayers, S. Stapcinskaite, C.R. Perkins, and A.A. Provas. 2024. Quantification of Pfas in Oyster Tissue Using a Rapid Quechers Extraction Followed by UPLC-MS/MS Analysis. *Analytical Letters* 57(3):355-367.
- ▶ [Short-Term Forecasting of Fecal Coliforms in Shellfish Growing Waters.](#)
Chazal, N., M. Carr, A.K. Leight, S.M. Saia, and N.G. Nelson. 2024. Short-Term Forecasting of Fecal Coliforms in Shellfish Growing Waters. *Marine Pollution Bulletin* 200:116053.
- ▶ [Optimization of a Method Designed to Extract and Characterize Microplastics in Different Packaged Fish Products.](#)
Duman, S., P. Doyen, P. Merveillie, N. Andersson, R. Bayeuil, T. Grard, A. Dehaut, and G. Duflos. 2023. Optimization of a Method Designed to Extract and Characterize Microplastics in Different Packaged Fish Products. *Food Control* 154:110029.
- ▶ [Twenty Years Later: PBDEs in Fish from U.S. Sites with Historically Extreme Contamination.](#)
La Guardia, M.J., T.M. Mainor, D.R. Luellen, E. Harvey, and R.C. Hale. 2024. Twenty Years Later: PBDEs in Fish from U.S. Sites with Historically Extreme Contamination. *Chemosphere* 351:141126.
- ▶ [Governing for Transboundary Environmental Justice: A Scientific and Policy Analysis of Fish Consumption Advisory Programs in the Upper St Lawrence River.](#)
Lowitt, K., A. Francis, L. Gunther, B.N. Madison, L. McGaughey, A. Echendu, M. Kaur, K.A. Roussel, Z.S. Pierre, and A. Weppler. 2024. Governing for Transboundary Environmental Justice: A Scientific and Policy Analysis of Fish Consumption Advisory Programs in the Upper St Lawrence River. *FACETS* 9:1-11.

- ▶ [Two for the Price of One: Deriving Per- and Polyfluoroalkyl Substances \(PFAS\) Fillet and Whole-Body Conversion Equations in Fish.](#)
Levanduski, E., W. Richter, J. Becker, Y. Hassanzadeh, and R. Razavi. 2024. Two for the Price of One: Deriving Per- and Polyfluoroalkyl Substances (PFAS) Fillet and Whole-Body Conversion Equations in Fish. *Environmental Science & Technology Letters*.
- ▶ [Increased Incidence of Vibriosis in Maryland, U.S.A.](#)
Morgado, M.E., K.D. Brumfield, C. Mitchell, M.M. Boyle, R.R. Colwell, and A.R. Sapkota. 2024. Increased Incidence of Vibriosis in Maryland, U.S.A., 2006–2019. *Environmental Research* 244:117940.
- ▶ [Fish Consumption and Omega-3 Polyunsaturated Fatty Acids from Diet Are Positively Associated with Cognitive Function in Older Adults Even in the Presence of Exposure to Lead, Cadmium, Selenium, and Methylmercury: A Cross-Sectional Study Using NHANES 2011–2014 Data.](#)
Sasaki, N., L.E. Jones, and D.O. Carpenter. 2024. Fish Consumption and Omega-3 Polyunsaturated Fatty Acids from Diet Are Positively Associated with Cognitive Function in Older Adults Even in the Presence of Exposure to Lead, Cadmium, Selenium, and Methylmercury: A Cross-Sectional Study Using NHANES 2011–2014 Data. *The American Journal of Clinical Nutrition* 119(2):283–293.
- ▶ [Estimating Angler Effort and Catch from a Winter Recreational Fishery Using a Novel Bayesian Methodology to Integrate Multiple Sources of Creel Survey Data.](#)
Tucker, C.M., S. Collier, G. Legault, G.E. Morgan, and D.K. de Kerckhove. 2024. Estimating Angler Effort and Catch from a Winter Recreational Fishery Using a Novel Bayesian Methodology to Integrate Multiple Sources of Creel Survey Data. *Fisheries Research* 272:106932.
- ▶ [Reservoir Stratification Modulates the Influence of Impoundments on Fish Mercury Concentrations Along an Arid Land River System.](#)
Willacker, J.J., C.A. Eagles-Smith, J.A. Chandler, J. Naymik, R. Myers, and D.P. Krabbenhoft. 2023. Reservoir Stratification Modulates the Influence of Impoundments on Fish Mercury Concentrations Along an Arid Land River System. *Environmental Science & Technology* 57(50):21313–21326.

Upcoming Meetings and Conferences

[47th Larval Fish Conference](#)

May 12–16, 2024
Huron, Ohio

[154th American Fisheries Society Annual Meeting](#)

September 15–19, 2024
Honolulu, Hawaii

[Responsible Seafood Summit](#)

October 21–24, 2024
St. Andrew's, Scotland

Additional Information

This bimonthly newsletter highlights current information about fish and shellfish.

For more information about specific advisories within the state, territory, or tribe, contact the appropriate state agency listed on EPA's National Listing of Fish Advisories website at <https://fishadvisoryonline.epa.gov/Contacts.aspx>.

For more information about this newsletter, contact Sharon Frey (Frey.Sharon@epa.gov, 202-566-1480).

Additional information about advisories and fish and shellfish consumption can be found at <https://www.epa.gov/fish-tech>.