United States Environmental Protection Agency

Fish and Shellfish Program NEWSLETTER

March 2025
EPA 823N25001

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

EPA News

EPA Administrator Lee Zeldin Announces the EPA's "Powering the Great American Comeback" Initiative

On February 4, 2025, EPA Administrator Lee Zeldin announced the Agency's "Powering the Great American Comeback" Initiative to achieve the Agency's mission while energizing the greatness of the American economy. This plan outlines the Agency's priorities under the leadership of President Trump and Administrator Zeldin. The newly announced initiative consists of five pillars that will guide the EPA's work over the first 100 days and beyond:

Pillar 1: Clean Air, Land, and Water for Every American

"Every American should have access to clean air, land, and water. I will ensure the EPA is fulfilling its mission to protect human health and the environment. In his first term, President Trump advanced conservation, reduced toxic emissions in the air, and cleaned up hazardous sites, while fostering economic growth for families across the country. We remain committed to these priorities in this administration, as well as ensuring emergency response efforts are helping Americans get back on their feet in the quickest and safest way possible. We will do so while remaining good stewards of tax dollars and ensuring that every penny spent is going towards advancing this mission," **said Administrator Zeldin.**

Pillar 2: Restore American Energy Dominance

"Pursuing energy independence and energy dominance will cut energy costs for everyday Americans who are simply trying to heat their homes and put gas in their cars. This will also allow our nation to stop relying on energy sources from adversaries, while lowering costs for hardworking middle-income families, farmers, and small business owners. I look forward to working with the greatest minds driving American innovation, to ensure we are producing and developing the cleanest energy on the planet," **said Administrator Zeldin**.

Pillar 3: Permitting Reform, Cooperative Federalism, and Cross-Agency Partnership

"Any business that wants to invest in America should be able to do so without having to face years-long, uncertain, and costly permitting processes that deter them from doing business in our country in the first place. It will be important for the EPA to work with our partners at the state and federal levels to ensure projects are being approved and

companies can invest billions of dollars into our nation. Streamlining these processes, while partnering with businesses to follow the necessary steps to safeguard our environment, will incentivize investment into our economy and create American jobs," **said Administrator Zeldin**.

Pillar 4: Make the United States the Artificial Intelligence Capital of the World

"As we rapidly advance into this new age of artificial intelligence (AI), it is important that the United States lead the world in this field. Those looking to invest in and develop AI should be able to do so in the U.S., while we work to ensure data centers and related facilities can be powered and operated in a clean manner with American-made energy. Under President Trump's leadership, I have no doubt that we will become the AI capital of the world," **said Administrator Zeldin.**

Pillar 5: Protecting and Bringing Back American Auto Jobs

"Our American auto industry is hurting because of the burdensome policies of the past. Under President Trump, we will bring back American auto jobs and invest in domestic manufacturing to revitalize a quintessential American industry. We will partner with leaders to streamline and develop smart regulations that will allow for American workers to lead the great comeback of the auto industry," **said Administrator Zeldin**.

For more information, contact EPA Press Office, press@epa.gov.

Source: https://www.epa.gov/newsreleases/epa-administrator-lee-zeldin-announces-epas-powering-great-american-comeback

Recent Advisory News

Kansas Fish Consumption Advisories for 2025

On January 10, 2025, the Kansas Department of Health and Environment (KDHE) and the Kansas Department of Wildlife and Parks (KDWP) (collectively, "Kansas") issued consumption advisories for 2025. The following advisories identify types of fish, or other aquatic species, that should be eaten in limited quantities or, in some cases, avoided altogether because of contamination. General advice and internet resources are provided to aid the public in making informed decisions regarding the benefits and risks associated with eating locally caught fish from Kansas waters.

Definitions and Servings:

Bottom-feeding fish: buffalo, carp, catfish, sturgeon, and suckers

Shellfish: mussels, clams, and crayfish

Serving size (skinless fish fillets before cooking):

- Adults and children age 13 and older = 8 ounces
- Children age 6 to 12 = 4 ounces
- Children younger than 6 = 2 ounces

Statewide Mercury Advisories for Fish:

There are many health benefits associated with going outside and catching and consuming fish; however, all fish contain some amount of mercury. Consumption of mercury-rich fish can harm the development of fetuses, nursing babies, and growing children. As a result, anyone who routinely eats fish or serves fish to children, including store-bought fish, should carefully consider the type and amount of fish eaten. Therefore, mercury-sensitive individuals (**women who are pregnant, nursing, or may become pregnant, and children 17 or younger)** should follow the guidelines presented below for eating Kansas-caught fish.

Fishing and Eating Guidelines:

- Eat smaller portions — a fillet about the size of your palm.
- Eat fish species with less mercury (see "Preferred Choice Fish" chart below).
- If you don't know what type or size of fish you've eaten, wait at least one week before eating fish again.
- When fishing, keep fish shorter than your forearm (fingertips to elbow) or less than 20 inches, as regulations allow.
  Visit Fishing Regulations / Fishing / KDWP — KDWP (ksoutdoors.com) for more information.

Preferred Choice Fish	Servings
Blue and channel catfish	1 or 2 per week
Common carp	
Crappies	
White bass, white perch, wiper, striped bass	
Walleye, sauger, saugeye	
Bullhead catfish	
Drum	
Sunfish (bluegill, green, redear, etc.)	
Second Choice Fish	**Servings**
Buffalo (black, bigmouth, smallmouth)	1 or 2 per month
Flathead catfish	
Bass (largemouth, smallmouth, and spotted)	

Reduce the recommendations above if you tend to eat **fish larger than 20 inches** to:

- Preferred Choice Fish — not more than 1 serving per week
- Second Choice Fish — not more than 1 serving per month

For specific questions or concerns about mercury in Kansas-caught fish, contact KDHE. For information about mercury in fish caught in other states, store-bought fish, and other types of seafood, visit the EPA and U.S. Food and Drug Administration (FDA) EPA-FDA Advice about Eating Fish and Shellfish | US EPA website.

Waterbody-Specific Advisories for All Consumers:

Kansas recommends restricting consumption of **bottom-feeding fish** to **2 servings per month** from the following location because of polychlorinated biphenyls (PCBs):

- **Little Arkansas River** from the Main Street Bridge immediately west of Valley Center to the confluence with the Arkansas River in Wichita (Sedgwick County).

Kansas recommends restricting consumption of **bottom-feeding fish** to **1 serving per month** from the following locations because of PCBs:

- **Cow Creek** in Hutchinson and downstream to the confluence with the Arkansas River (Reno County).
- **K-96 Lake** in Wichita (Sedgwick County).

Kansas recommends restricting consumption of **bottom-feeding fish** to **1 serving per month** from the following location because of arsenic:

- **Mill Creek** from Madison Road east of Morrowville to confluence with Little Blue River (Washington County).

Kansas recommends **not eating** specified fish or aquatic life from the following locations:

- **Antioch Park Lake South** in Antioch Park, Overland Park (Johnson County); **all fish** due to pesticides: dieldrin, heptachlor epoxide, chlordane and dichlorophenyltrichloroethanes (DDTs).
- **Arkalon Park Lakes** in Liberal (Seward County); **all aquatic life** because the lakes are sustained solely by treated municipal wastewater.
- **Arkansas River** from the Lincoln Street dam in Wichita downstream to the confluence with Cowskin Creek near Belle Plaine (Sedgwick and Sumner counties); **bottom-feeding fish** due to PCBs.
- **Kansas River** from Lawrence (below Bowersock Dam) downstream to Eudora at the confluence of the Wakarusa River (Douglas and Leavenworth counties); **bottom-feeding fish** due to PCBs.
- **Mill Creek** from Washington (below 18th Road) downstream to confluence of Little Blue River (Washington County); **shellfish** due to arsenic.
- **Shoal Creek** from the Missouri/Kansas border to Empire Lake (Cherokee County); **shellfish** due to lead and cadmium.
- **Spring River** from the confluence of Center Creek to the Kansas/Oklahoma border (Cherokee County); **shellfish** due to lead and cadmium.

Waterbodies Affected by Harmful Algae Blooms:

To date, measured algal toxin levels in fish samples collected from waters affected by harmful algal blooms suggest the fish are safe to eat. However, please take the following precautions:

- Avoid skin contact with water.
- Wear gloves when handling wet fish and equipment.
- Rinse fish with clean water.
- Remove skin from fillets and rinse with clean water prior to cooking or freezing.
- Eat only skinless fillets.
- Do not eat shellfish.

General Advice for Reducing Exposure to Chemicals in Fish:

- Keep smaller fish to eat (regulations permitting) and let the big ones go.
- Avoid eating fish parts other than fillets.
- Trim fat from fillets and/or use cooking methods that allows fat to drip away.
- Avoid subsistence fishing (relying on wild-caught fish for daily nutritional needs) in rivers within or immediately downstream of large urban/industrial areas.

- Do not eat fish or aquatic life from wastewater outfalls, waste treatment lagoons or stormwater retention ponds.

Other information from KDHE, KDWP, the EPA and the American Heart Association:

- To view the advisories online — and for information about KDHE's Fish Tissue Contaminant Monitoring Program — Fish Tissue Contaminant Monitoring Program | KDHE, KS.
- For information about fishing in Kansas — including licensing, regulations, fishing reports and forecasts — Fishing in Kansas | KDWP.
- For information about the health benefits and risks of including fish in your diet, visit Eating fish twice a week reduces heart, stroke risk | American Heart Association.
- For technical information regarding the EPA risk assessment methods used to determine advisory consumption limits, visit EPA Guidance for Developing Fish Advisories | US EPA.

For more information, contact KDHE at kdhe.info@ks.gov or KDWP at (620) 672-5911.

Source: https://www.kdhe.ks.gov/CivicAlerts.aspx?AID=1409

Yellowstone River Fish Consumption Advisory Updated

Women of childbearing age and young children advised to not consume shorthead redhorse suckers from Yellowstone River near Reed Point

On February 4, 2025, the Montana Fish Consumption Advisory Board (MFCAB), consisting of representatives from the Montana Department of Public Health & Human Services (MDPHHS), Montana Department of Environmental Quality (MDEQ) and Montana Fish, Wildlife & Parks (MFWP), issued an updated consumption advisory for fish from the Yellowstone River.

Women of childbearing age, including nursing mothers, women who are pregnant or who may become pregnant, and young children (age 0 to 6 years) are advised to not consume shorthead redhorse, a fish in the sucker family, from Bratten Fishing Access Site to Itch-Kep-Pe Park in Columbus on the Yellowstone River due to elevated levels of hydrocarbons. Hydrocarbons are a class of chemicals made up of only carbon and hydrogen atoms. They can range from a simple gas, such as methane, to complex long chain chemicals found in crude oil. Hydrocarbons occur in both industry and nature.

The MFCAB recognized that human consumption of fish species such as shorthead redhorse is uncommon. There are no advisories on using meat from shorthead redhorse from this section of river as bait while angling for other fish species.

Sampling Results

Fish species from the Yellowstone River were initially sampled in the summer of 2023 for human health concerns as a follow-up to the **train derailment** that spilled liquid asphalt into the river.

Various polycyclic aromatic hydrocarbons and hydrocarbons were detected in fish tissue from sampling in the summer and fall of 2023 and summer of 2024. The source of these contaminants was not determined.

MFWP crews collected fish at Otter Creek Holmgren Ranch Fishing Access Site and at Huntley on the Yellowstone River on June 24, 2024, to monitor for human consumption concerns. This sampling was done approximately one year from the first sampling in 2023, so environmental conditions such as water flow and temperature would be consistent. Brown trout, rainbow trout, longnose sucker, and mountain whitefish of various lengths were collected at Otter Creek and Holmgren Ranch Fishing Access Sites. At Huntley, smallmouth bass, channel catfish, goldeye, and shorthead redhorse were collected. The same fish species were not collected at all sites, as the species present in the Yellowstone River change as the river habitat changes.

The MFCAB averaged the results from all sampling efforts from summer 2023 to summer 2024. The only exceedance of the recommended amount of hydrocarbons was for shorthead redhorse consumed by children six years and younger, and women of childbearing age. No other fish species exceeded limits for these contaminants. The previous consumption advisories from **August 11** and **September 19** , 2023, and **May 31** , 2024, for various species of fish on the Yellowstone River have been lifted.

Because of their frequent movement throughout river systems, fish cannot be used to determine contaminant sources. Sampling conducted by the Fish Consumption Advisory Board was not designed to find a source of contaminants, but rather to look at human consumption concerns in fish tissue.

Currently, the MFCAB is not suggesting additional sampling for human health concerns in this section of the Yellowstone River.

The hydrocarbons detected in the shorthead redhorse samples may affect the liver, kidney and blood when eating a lot of fish over a long period of time, based on animal research. These effects from eating fish have not been recorded in humans. Most of the chemicals detected in fish collected in 2023 and 2024, including those detected in the shorthead redhorse samples, have not been classified as cancer-causing.

For more information on petroleum hydrocarbons, visit the Centers for Disease Control and Prevention's Total Petroleum Hydrocarbons page.

For more information, contact Jon Ebelt, MDPHHS, jebelt@mt.gov, Rebecca Harbage, MDEQ, rharbage@mt.gov, and Chrissy Webb, MFWP, chrislin.webb@mt.gov.

Source: https://www.dphhs.mt.gov/News/2025/February/YellowstoneRiverFishConsumptionAdvisory

Other News

Cost-benefit Study Confirms Coral Reef Restoration Could Be A Cost-effective Way to Save Lives and Money

A new study shows coral reef restoration in Florida and Puerto Rico could save thousands of lives and prevent hundreds of millions of dollars in damage and economic disruption each year.

Coral reef habitat. (*Photo courtesy of Curt Storlazzi, PhD, and USGS*)

On January 15, 2025, the U.S. Geological Survey (USGS) announced that researchers developed a modeling system to quantify the value coral reef restoration could provide to 1,000 kilometers, or 621 miles, of coastline in Florida and Puerto Rico. The research compared how much flooding storms could cause with and without coral reef restoration at a 10 square meter, or 108 square feet, resolution. Researchers then determined how many people and how much property and economic activity reef restoration could protect by preventing coastal flooding.

"Coral reefs are natural coastal barriers that can substantially reduce coastal flooding and erosion," said **Curt Storlazzi, lead author and research geologist** from the USGS. "Over the past few decades, we've lost a lot of reefs to global and local stressors and restoring them can re-establish the protection they once provided."

Reefs can absorb and weaken damaging waves. As a result, waves that hit shores are smaller and cause less flooding and erosion, saving lives and money. Restoring degraded or destroyed coral reefs could protect nearly 3,000 people each year in Florida and Puerto Rico alone. Reefs could also prevent more than $391 million in damage to property and lost economic activity annually.

Using a budget of $3 million per kilometer, the study calculates a benefit-to-cost analysis of reef restoration and maintenance. About half of the budget is allocated to establishing reefs and the other half to maintenance. In about 20 percent of the study area, the value of property and economic activity protected from storm damage would be greater than the cost of reef restoration.

"This approach represents a massive advance in characterizing the effectiveness of nature-based infrastructure for coastal protection. Modeling benefit-to-cost of protection and/or restoration can also be applied to other ecosystems, such as beaches, marshes, oyster reefs, and mangrove forests," said **Borja Reguero, professor at the University of California, Santa Cruz (UCSC)**. "In addition, this modeling system can be used to assess the impacts of future changes in storms or sea level, helping us to measure when and how cost effective it is to adapt."

"Our goal in this study was to provide sound science to identify who benefits from restoration and where those benefits are felt most," said **Storlazzi**. "We want people to understand that restoring coral reefs isn't just about protecting beautiful and diverse habitats. It's about protecting people, their cities, and the places they call home."

This study also provides a framework to calculate benefit-to-cost analyses for coral reef restoration in hazard risk reduction. This establishes an avenue for coral restoration projects to be considered for post-disaster mitigation funding from agencies like the Federal Emergency Management Agency or the U.S. Army Corps of Engineers, alongside traditional risk-reduction methods such as bulkheads or breakwaters.

Coral reef restoration can be longer lasting than manmade structures alone. If sea levels change, manmade structures like levees or seawalls would need to be made taller. However, coral reefs are living animals and can grow with changing sea levels.

"Most hazard mitigation and disaster recovery funding supports artificial infrastructure, such as seawalls, that degrade nature," said **Michael W. Beck, affiliated faculty at the UCSC Institute of Marine Sciences** and a co-lead on the project. "By valuing the benefits of natural infrastructure, we level the playing field and open major new funding opportunities for reef restoration."

What about the value coral reefs provide industries such as tourism, recreation, and fisheries? This study only considers the economic benefits of avoided damage. As a result, the true economic value of coral reef restoration is likely much higher.

The new study by the USGS, UCSC, and the National Oceanic and Atmospheric Administration (NOAA) titled "Hybrid coral reef restoration can be a cost-effective nature-based solution to provide protection to vulnerable coastal populations" was published in the journal *Science Advances*. DOI: 10.1126/sciadv.adn4004

For more information, contact Paul Laustsen, Public Affairs — Western States, plaustsen@usgs.gov and 650-847-8522.

Source: https://www.usgs.gov/news/national-news-release/cost-benefit-study-confirms-coral-reef-restoration-could-be-a-cost

National Oceanic and Atmospheric Administration Fisheries and Northwest Indian Fisheries Commission Promote Fisheries-Related Career Paths for Tribal Youth

The Native Youth Salmon Summit in the fall of 2024 gave students hands-on experience while mentoring and tutoring programs under development will offer continued support.

On January 22, 2025, the NOAA Fisheries Careers in environmental science and policy rewarded and offered a wide range of professional opportunities. To help promote workforce development in these fields for tribal members, the Northwest Indian Fisheries Commission (NWIFC) and NOAA have partnered to create a Workforce Development Workgroup.

The workgroup provides a forum for NOAA to work collaboratively with tribal governments to support tribal members with career education, training, and recruitment. This engagement enhances NOAA's trust responsibilities and supports education and career development of tribal members in natural resource fields. NWIFC tribes have treaties with the U.S. federal government reserving their right to fish. They are co-managers of the fisheries with the states and federal government.

"Our goal is to connect Native youth with opportunities to learn more about natural resource stewardship and the wide variety of careers available to them," said NWIFC Executive Director Justin Parker. "We want to pass this knowledge down to the next seven generations of leaders so they can continue to protect the natural resources our ancestors secured for us in our treaties."

As part of this effort, the Tulalip Tribes hosted the first-of-its-kind Native Youth Salmon Summit last fall. More than 70 students, teachers, and parents attended the 2-day event. It was held at the Tulalip Reservation on the shores of Puget Sound, near the Snohomish River estuary. Middle and high school students from tribes across the Pacific Northwest learned about their salmon culture, and careers they can pursue to contribute to salmon conservation and recovery.

The summit was supported by organizations including:

- Tulalip Tribes
- NWIFC
- NOAA Fisheries West Coast Region
- Salmon Defense
- Washington Sea Grant

The Native Youth Salmon Summit featured hands-on activities at the Tulalip salmon hatchery. Students learned how tribal biologists raise coho and Chinook salmon and monitor their returns. On the shores of the Snohomish River estuary, they also learned how NOAA Fisheries and tribal biologists monitor juvenile salmon as they rear before migrating to saltwater environments.

"Our objective is to support tribal youth to go into fishing, conservation management, and science careers," said Dan Tonnes, workforce development specialist for NOAA Fisheries West Coast Region and the NOAA Office of Education. "The very experienced tribal folks are retiring and looking for younger tribal members to take their place, but we need to connect them with the educational and career pathways to take advantage of these opportunities."

The workgroup followed up the summit with a webinar in December for tribal high school and college students, as well as young professionals. They learned about career development opportunities at NOAA, the U.S. Fish and Wildlife Service, and Washington Sea Grant.

The workgroup meets quarterly and is working to create a tribal youth advisory board and mentoring program. It is developing a tutoring and classroom presentation program for NOAA staff to support tribal students, among other initiatives. Participating staff include NOAA employees from:

- Office of Education
- NOAA Fisheries West Coast Region
- National Ocean Service Marine Debris Program
- NOAA Fisheries science centers

For more information, contact the NOAA West Coast Regional Office at 650-847-8522.

Source: https://www.fisheries.noaa.gov/feature-story/noaa-fisheries-and-northwest-indian-fisheries-commission-promote-fisheries-related

Tech and Tools

New U.S. Geological Survey Dataset Uncovers the Santiam River's Underwater Topography to Aid in Fish Habitat and Water Flow Management

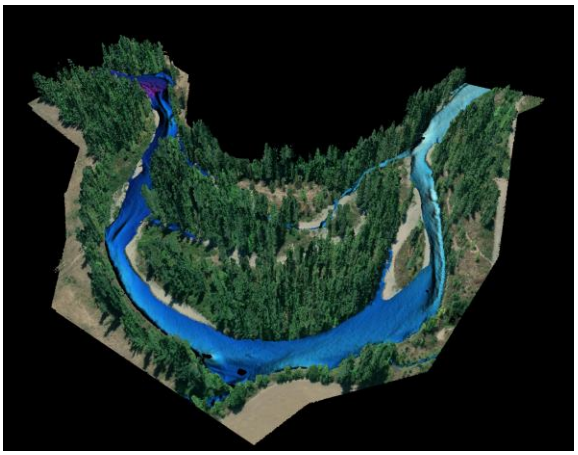
A new dataset for the Santiam River in Oregon, published by the USGS, provides a highly detailed underwater 3D elevation map that will help support fish habitat restoration and flood modeling work.

USGS announced on December 18, 2024, that this work was done as part of the USGS 3D Elevation Program, known as 3DEP, which uses a next-generation mapping technology to obtain highly detailed three-dimensional elevation information about the natural and constructed landscapes of the Nation, including surfaces under rivers and other inland waterbodies. Known as topobathymetric lidar, the technology uses laser pulses that penetrate water to provide accurate measurements of both the riverbed and the surrounding topography.

The data are essential for understanding river dynamics, aquatic habitat conditions and flood risk. It will also be used to develop models of habitat availability for salmon and steelhead and other fish species in relation to river flow below Willamette Valley system dams.

"Models developed by the USGS using the lidar data help U.S. Army Corps of Engineers and its partners evaluate the effects of flow management and set targets for water releases from dams to improve the survival of endangered fish species." said **Richard Piaskowski, fish biologist with the U.S. Army Corps of Engineers (USACE) Portland District**.

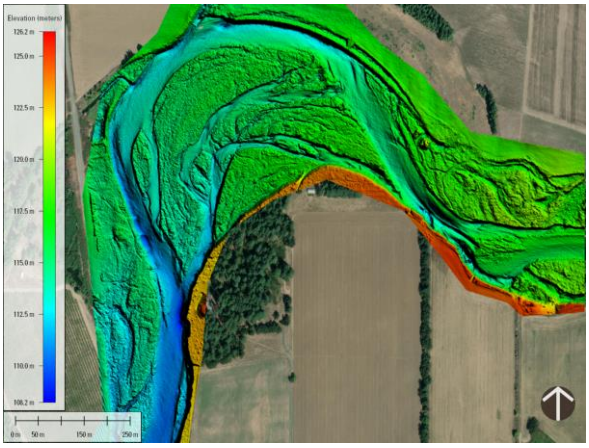
The USACE is also using river bathymetry data to update flood models in the Willamette Valley to better inform communities about flood risks and manage dams and reservoir levels.



Topobathymetric digital elevation model of the Santiam River in the Willamette Valley southeast of Salem, Oregon. The trees and dry land are shown as a lidar point cloud colored based on aerial imagery. (*Photo courtesy of USGS*)

Paul Sclafani, USACE Portland District Floodplain Manager, said "The data are fundamental to the creation of these models and support state and federal partnerships to provide flood information to communities."

At the USGS, recent topobathymetric lidar surveys in Oregon are supporting the USGS Integrated Water Science Program in the Willamette River Basin to study factors that affect water availability for cities, agriculture and ecologically important species such as salmon.



Topobathymetric digital elevation model of the Santiam River in the Willamette Valley southeast of Salem, Oregon. (*Photo courtesy of USGS*)

James White, a hydrologist at the USGS Oregon Water Science Center, said "The bathymetric lidar collected in the Santiam River Basin is helping revolutionize the way we model riverbed sediment distributions, which helps inform river management questions related to hazards and ecosystem health. The data also provide critical baseline information which helps us monitor future change from factors such as wildfires, and river management."

The USGS is piloting topobathymetric data acquisition as the technology and methods mature for capturing elevation data under water for inland water bodies. The goal is to make the data more commonly accessible across the nation. The lidar point clouds and topobathymetric digital elevation models for the Santiam River, the Klamath River, the Potomac River, the Upper Colorado River and several other rivers in the United States can be visualized or downloaded through the 3DEP Lidar Explorer here.

To learn more, please visit the USGS 3D Elevation Program website.

For more information, contact Cindy Thacher, Elevation Management and Planning Lead, thatcherc@usgs.gov, 703-648-5122, Gina Anderson, Public Affairs Specialist, granderson@usgs.gov, 405-509-3524, or general 3D Elevation Program contact, 3DEP@usgs.gov.

Source: https://www.usgs.gov/news/national-news-release/new-usgs-dataset-uncovers-santiam-rivers-underwater-topography-aid-fish

Recent Publications

Journal Articles

The list below provides a selection of research articles.

- Fish Consumption Patterns and Health Risk Assessment of Polycyclic Aromatic Hydrocarbons and Polychlorinated Biphenyls in Fried and Grilled Fish Products and Mitigation Strategies.
  Abhishek, S. Chakkaravarthi, T. Agarwal. 2025. Fish Consumption Patterns and Health Risk Assessment of Polycyclic Aromatic Hydrocarbons and Polychlorinated Biphenyls in Fried and Grilled Fish Products and Mitigation Strategies. *Toxicology Reports*:101953.

- Predicted Potential for Aquatic Exposure Effects of Per-and Polyfluorinated Alkyl Substances (PFAS) in Pennsylvania's Statewide Network of Streams
  Breitmeyer, S.E., A.M. Williams, M.D. Conlon, T.A. Wertz, B.C. Heflin, D.R. Shull, and J.W. Duris. 2024. Predicted Potential for Aquatic Exposure Effects of Per-and Polyfluorinated Alkyl Substances (PFAS) in Pennsylvania's Statewide Network of Streams. *Toxics* 12(12):921.

- Contamination of Per-and Polyfluoroalkyl Substances in Freshwater Fish from Areas Adjacent to Three Former and Active Military Facilities in New York.
  Chen, Y., K.M. Gattoni, E. Paul, P.J. Sullivan, A.C. Valachovic, and L. Vogl. 2025. Contamination of Per-and Polyfluoroalkyl Substances in Freshwater Fish from Areas Adjacent to Three Former and Active Military Facilities in New York. *Archives of Environmental Contamination and Toxicology*: 1-16.

- Per-and Poly-Fluoroalkyl Substances (PFAS) in Sediment: A Source of PFAS to the Food Web?
  Endicott, D., R. Silva-Wilkinson, D. McCauley, and B. Armstrong. 2025. Per-and Poly-Fluoroalkyl Substances (PFAS) in Sediment: A Source of PFAS to the Food Web? *Integrated Environmental Assessment and Management*:vjaf010.

- Cleaner Cuts: Farmed Fish and Skin-Off Fillets Are Lower in Per-and Polyfluoroalkyl Substances (PFAS).
  Figueroa-Muñoz, G., C.A. Murphy, K. Whittum, and J. Zydlewski. 2025. Cleaner Cuts: Farmed Fish and Skin-Off Fillets Are Lower in Per-and Polyfluoroalkyl Substances (PFAS). *Science of The Total Environment* 959:178266.

- Fish as Environmental Sentinels for Metal Contaminants of Human Health Concern in the Lower Mississippi River Basin.
  Hearst, S., T. Selby, J. Kazery, S. Everman, M. Feng, L. Sisson, C. Nwaiwu, A. Cevallos, J. Lock, and M. Sinclair. 2025. Fish as Environmental Sentinels for Metal Contaminants of Human Health Concern in the Lower Mississippi River Basin. *Journal of Trace Elements in Medicine and Biology* 87:127593.

- Accessible, Low-Mercury, and Nutritious Fishes Provide Win-Wins for Conservation and Public Health.
  Heilpern, S.A., A.S. Flecker, S. López-Casas, P.B. McIntyre, L. Moya, S. Sethi, and K.J. Fiorella. 2025. Accessible, Low-Mercury, and Nutritious Fishes Provide Win-Wins for Conservation and Public Health. *One Earth* 8(1).

- Provisioning Fisheries: A Framework for Recognizing the Fuzzy Boundary around Commercial, Subsistence, and Recreational Fisheries.
  Nguyen, V.M.-A., K.J. Fiorella, L. Castello, M.K. Badhon, C. Beaudoin, J. Coffin-Schmitt, S.J. Cooke, A.T. Fisk, E. Nyboer, and D.M. O'Keefe. 2025. Provisioning Fisheries: A Framework for Recognizing the Fuzzy Boundary around Commercial, Subsistence, and Recreational Fisheries. *Fisheries*:vuae031.

- Per-and Polyfluoroalkyl Substances (PFAS) Accumulation in Fish Occupying Different Trophic Positions from East Canyon Creek, a Seasonally Effluent-Dominated River, Utah, USA.
  Sapozhnikova, Y., K.M. Stroski, S.P. Haddad, S.R. Burket, M. Luers, and B.W. Brooks. 2025. Per-and Polyfluoroalkyl Substances (PFAS) Accumulation in Fish Occupying Different Trophic Positions from East Canyon Creek, a Seasonally Effluent-Dominated River, Utah, USA. *Environmental Research* 266:120480..

- Mixed-Mode Surveys Reveal Shared Regulatory Preferences in an Overfished Recreational Fishery.
  Smith, D.R., S.R. Midway, J.W. Adriance, H.R. Blanchet, and R.H. Caffey. 2025. Mixed-Mode Surveys Reveal Shared Regulatory Preferences in an Overfished Recreational Fishery. *Human Dimensions of Wildlife* 30(1):59-76.

Upcoming Meetings and Conferences

Native American Fish & Wildlife Society's (NAFWS) Annual National Conference 2025
May 12–15, 2025
Riverton, WY

American Fisheries Society
August 10–14, 2025
San Antonio, TX

SETAC North America 46th Annual Meeting
November 16–20, 2025
Portland, OR

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 Fish_Advisory@epa.gov.

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