

PNW Contaminants Workgroup

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Background

- The NPS sponsored an interagency workshop in 2010 to explore a coordinated approach for addressing air toxins in national parks and other protected areas in the Pacific Northwest.
 - 10 U.S. and Canadian university, state and federal organizations were represented.
 - Attendees were divided into three breakout groups to identify and prioritize data needs.
 - Source attribution and transport
 - Monitoring and risk assessment
 - Outreach and information exchange
 - All three groups identified establishment of an interagency contaminants workgroup focused on issues in the Pacific Northwest as the top priority.



PNW Contaminants Workgroup

- The Workgroup formed in 2011 and meets every other month via conference call.
- Workgroup objectives:
 - Develop a data clearinghouse and a forum to facilitate collaboration and coordination of contaminant monitoring and research activities in the region.
 - Prioritize contaminant-related research and monitoring needs in the Pacific Northwest, collaborate on funding, and conduct monitoring and research projects.
 - Coordinate outreach efforts and products related to contaminants issues in the region.

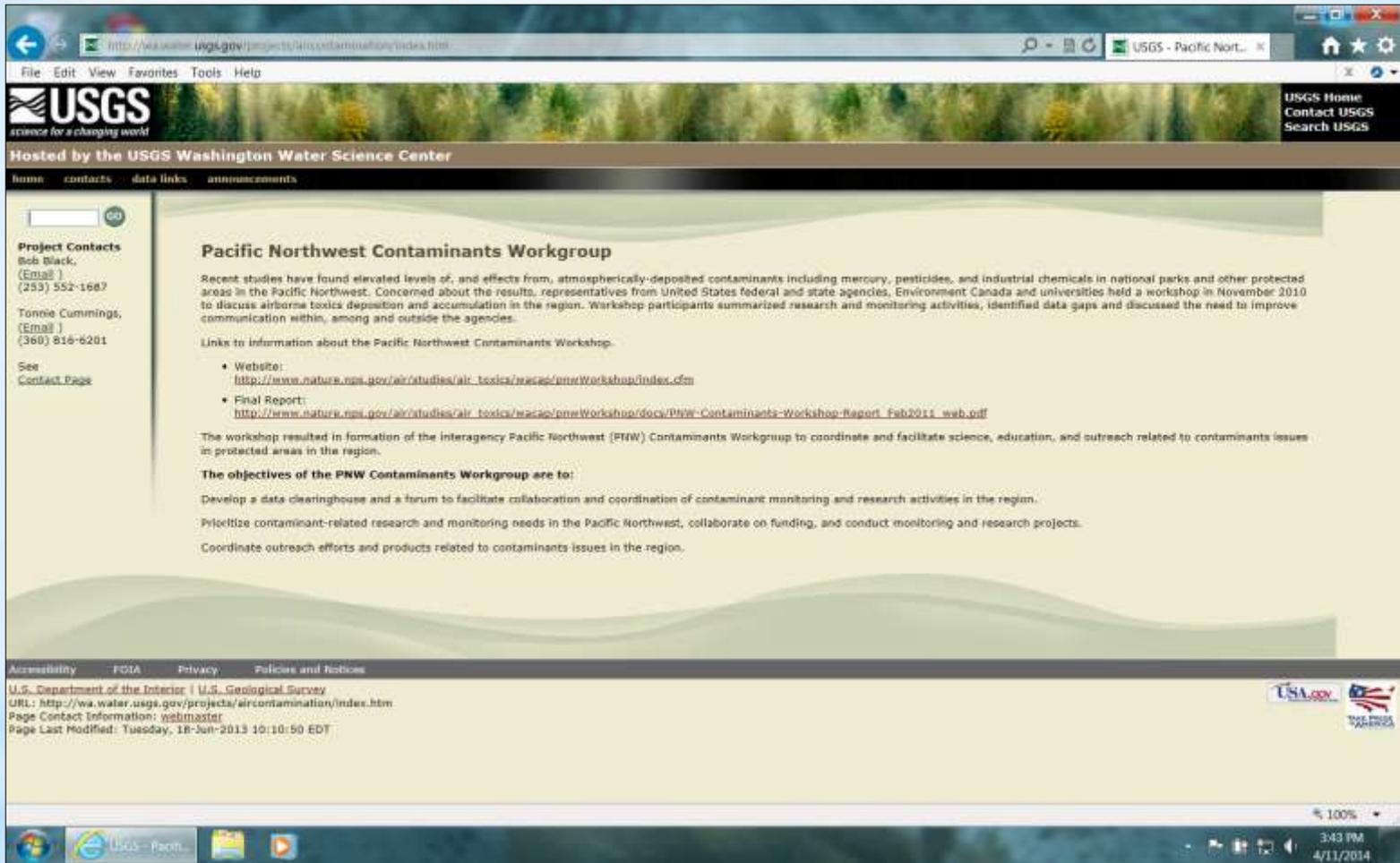


Accomplishments

- Developed a website to improve access to information.
- In spite of flat/declining budgets, we have moved forward with a number of collaborative efforts, for example:
 - USGS analyzed mercury concentrations in hundreds of NPS and USFS fish samples at no cost. State agencies have similarly offered workgroup members no-cost mercury analyses.
 - Workgroup members are helping NPS and USFS figure out which toxic pollutants are likely the greatest threat in national parks and national forests.
 - A researcher from the University of Regina, Canada, has expanded her pesticide monitoring project to areas in the U.S., including Mount Rainier NP.
 - NPS staff are coordinating with Washington Department of Health to develop consistent fish consumption advisories.
 - USGS is studying the threat of coal train dust to wildlife in FWS refuges in the Columbia River Gorge.
- Greatest benefit has been improved understanding and building of relationships among agencies.



Website



<http://wa.water.usgs.gov/projects/aircontamination/index.htm>



Website

The screenshot shows a web browser window displaying the USGS Pacific Northwest website. The address bar shows the URL: <http://wa.water.usgs.gov/projects/aircontamination/data.html>. The page features the USGS logo and navigation links for home, contacts, data links, and announcements. The main content area is titled "Pacific Northwest Contaminants Workgroup" and includes sections for "Data Links", "Additional Pacific Northwest Contaminants Workgroup Information", and "Related Resources".

Project Contacts
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See
Contact Page

Pacific Northwest Contaminants Workgroup

Data Links

To submit additional links to the website, contact Tennie Cummings.

Interactive Map of Contaminant Sampling in the Pacific Northwest*
*Works in Internet Explorer 9 and greater, Firefox, and Chrome.

One objective of the Pacific Northwest Contaminants Workgroup is to provide a clearinghouse for regional contaminants data. Information supplied by workgroup members was used to develop an interactive map that shows contaminant sampling locations and has links to associated fact sheets, reports and databases.

Additional Pacific Northwest Contaminants Workgroup Information

Links are provided to workgroup member websites and project reports that are not available through the Interactive Map of Contaminants Sampling in the Pacific Northwest.

- [Oregon Department of Environmental Quality Laboratory Analytical Storage and Retrieval Database](#)
- [Oregon Department of Environmental Quality Statewide Toxics Monitoring Program](#)
- [Oregon Department of Environmental Quality Toxics Reduction Strategy](#)
- [Oregon Department of Public Health Fish and Shellfish Consumption Advisory](#)
- [University of Regina Agricultural Pesticides Monitoring in Western Canada Project](#)
- [U.S. Environmental Protection Agency Assessment of Mercury in Fish Tissue from Selected Lakes of Northeastern Oregon Project](#)
- [U.S. Forest Service Methylmercury Risk Assessment for National Forest Watersheds Project](#)
- [U.S. Geological Survey Mercury Bioaccumulation Across Western U.S. and Alaskan National Parks Project](#)
- [U.S. Geological Survey Methylmercury Bioaccumulation and Cycling in Off-channel and Backwater Habitats of Large Rivers Project](#)
- [U.S. Geological Survey Puget Sound Basin National Water Quality Assessment \(NAWQA\) Program](#)
- [Washington Department of Ecology Freshwater Fish Contaminant Monitoring Program Website and Database](#)
- [Washington Department of Ecology Persistent, Bioaccumulative, Toxics Monitoring Program and Database](#)
- [Washington Department of Health Contaminants](#)

Related Resources

Links are provided to other websites that contain contaminants information relevant to the Pacific Northwest.

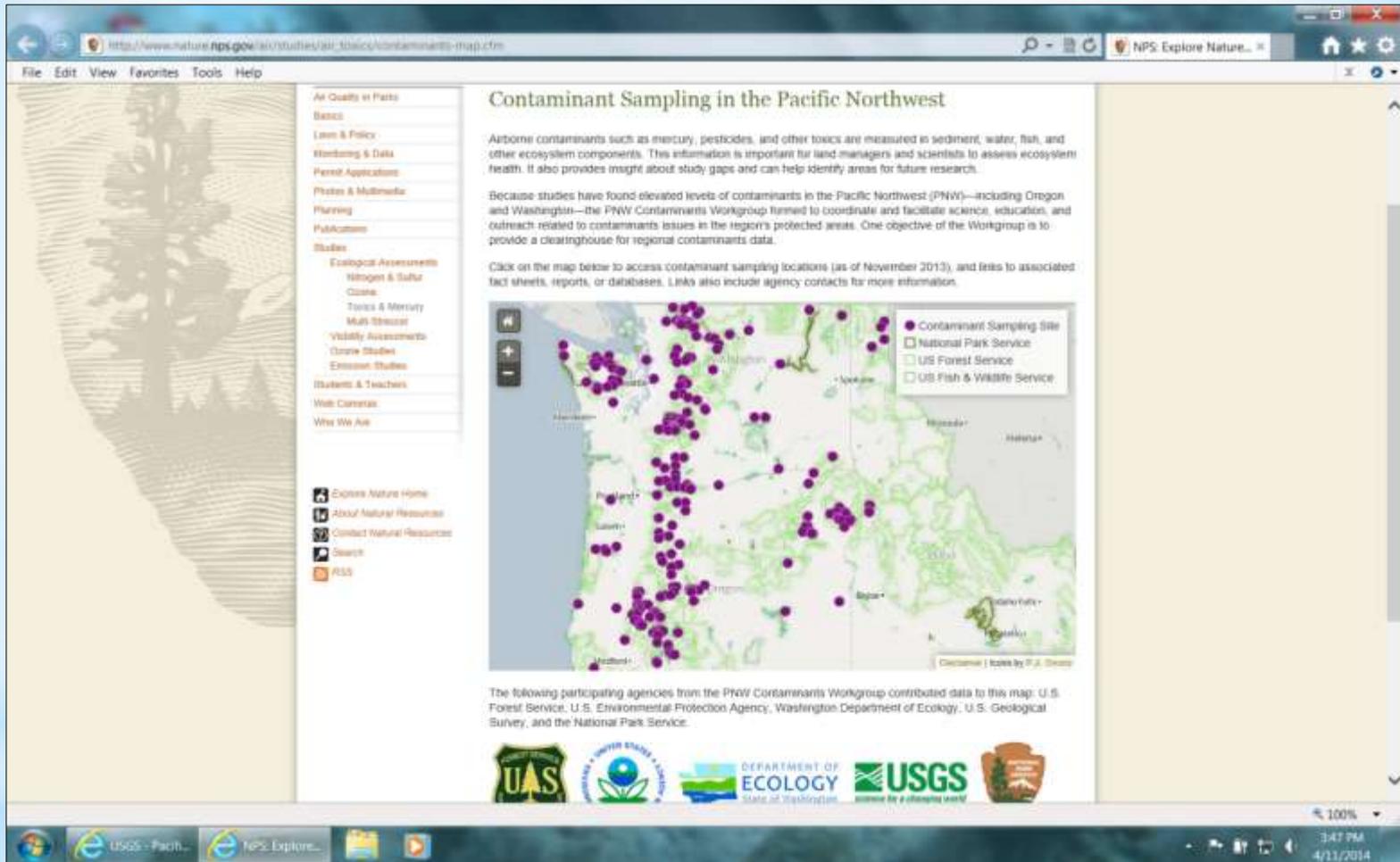
- [Biodiversity Research Institute Mercury in Western North America Project](#)
- [California Department of Pesticide Regulation](#)

http://wa.water.usgs.gov/projects/aircontamination/data/mehg%20bioaccumulation%20in%20off%20channel%20habitats%20cec%20summary.pdf

<http://wa.water.usgs.gov/projects/aircontamination/index.htm>



Website



<http://wa.water.usgs.gov/projects/aircontamination/index.htm>



Website

The screenshot shows a web browser window with the URL http://www.nature.nps.gov/air/studies/air_topics/contaminants-map.cfm. The page title is "Contaminant Sampling in the Pacific Northwest".

Contaminant Sampling in the Pacific Northwest

Airborne contaminants such as mercury, pesticides, and other toxics are measured in sediment, water, fish, and other ecosystem components. This information is important for land managers and scientists to assess ecosystem health. It also provides insight about study gaps and can help identify areas for future research.

Because studies have found elevated levels of contaminants in the Pacific Northwest (PNW)—including Oregon and Washington—the PNW Contaminants Workgroup formed to coordinate and facilitate science, education, and outreach related to contaminants issues in the region's protected areas. One objective of the Workgroup is to provide a clearinghouse for regional contaminants data.

Click on the map below to access contaminant sampling locations (as of November 2013), and links to associated fact sheets, reports, or databases. LINKs also include agency contacts for more information.

The map displays several purple dots representing contaminant sampling sites across the Pacific Northwest region. A legend indicates the following categories:

- Contaminant Sampling Site
- National Park Service
- US Forest Service
- US Fish & Wildlife Service

The following participating agencies from the PNW Contaminants Workgroup contributed data to this map: U.S. Forest Service, U.S. Environmental Protection Agency, Washington Department of Ecology, U.S. Geological Survey, and the National Park Service.

Logos for the following agencies are displayed at the bottom of the page:

- U.S. Forest Service (USFS)
- U.S. Environmental Protection Agency (EPA)
- Washington Department of Ecology
- U.S. Geological Survey (USGS)
- National Park Service

<http://wa.water.usgs.gov/projects/aircontamination/index.htm>



Website

The screenshot shows a web browser window displaying the NPS website. The address bar shows the URL: http://www.nature.nps.gov/air/studies/air_toxics/contaminants-map.cfm. The page title is "Contaminant Sampling in the Pacific Northwest".

Contaminant Sampling in the Pacific Northwest

Airborne contaminants such as mercury, pesticides, and other toxics are measured in sediment, water, fish, and other ecosystem components. This information is important for land managers and scientists to assess ecosystem health. It also provides insight about study gaps and can help identify areas for future research.

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Click on the map below to access contaminant sampling locations (as of November 2013), and links to associated fact sheets, reports, or databases. Links also include agency contacts for more information.

The map shows several sampling sites marked with purple dots. A callout box for "Berdew Lake - North Cascades NP (1 Report)" is visible, with a sub-entry for "Fish Tissue Chemistry". A legend indicates that purple dots represent "Contaminant Sampling Site", and the map area is managed by "National Park Service", "US Forest Service", and "US Fish & Wildlife Service".

The following participating agencies from the PNW Contaminants Workgroup contributed data to this map: U.S. Forest Service, U.S. Environmental Protection Agency, Washington Department of Ecology, U.S. Geological Survey, and the National Park Service.

Logos for participating agencies are shown at the bottom: U.S. Army Corps of Engineers (USACE), U.S. Environmental Protection Agency (EPA), Washington Department of Ecology, U.S. Geological Survey (USGS), and National Park Service.

<http://wa.water.usgs.gov/projects/aircontamination/index.htm>



Website

The screenshot shows a web browser window with the following content:

- URL:** <https://irma.nps.gov/App/Reference/Profile/2185337>
- Title:** Schreck C and Kent M. 2013. Extent of Endocrine Disruption in Fish of Western and Alaskan National Parks. Unpublished Report-2185337.
- Reference Code:** 2185337
- Reference Status as of 06/04/2013:** Active
- Visibility:** Public
- Core Information:**
 - Title:** Extent of Endocrine Disruption in Fish of Western and Alaskan National Parks.
 - Brief Description:** In 2008 & 2009, 998 fish were collected from 43 water bodies across 11 western & Alaskan national parks and analyzed for reproductive abnormalities. Exposure to estrogenic substances such as pesticides can induce abnormalities like intersex. Results suggest there is a greater propensity for male intersex fish collected from parks located in the Rocky Mountains, and specifically in Rocky Mountain NP. Individual male intersex fish were also identified at Lassen Volcanic, Yosemite, and Wrangell-St. Elias NPs. The preliminary finding of female intersex was determined to be a false positive.
 - Date Issued/Produced:** May, 2013
 - Content Begin Date:** Summer 2008
 - Content End Date:** Summer 2010
 - Place Produced:** -
 - Editor:** -
 - Abstract/Final Description:** The overall goal of this project was to assess the general health of fish from eleven western national parks to infer whether health impacts may be linked to contaminant health thresholds for animal and/or human health. This was accomplished by evaluating the presence of intersex (fish with eggs developing in male gonads or sperm developing in female gonads) using histology. In addition, endocrine disrupting compounds and other contaminants were quantified in select specimens. General histologic appearance of the gonadal tissue and spleen were observed to assess health.
 - Notes:** This project is part 1 of 2 assessing whether reproductive abnormalities are correlated with contaminant body burdens in fish. See Simerich et al. 2012 at <http://irma.nps.gov/App/Reference/Profile/2184538>
 - Author:** Carl Schreck, Dr.; Michael Kent, Dr.
- Holdings:**
 - Digital:** NPS_Endo_Disruption_Report_Final_May_2013.pdf
- Information Resource Evaluation:**
 - Sensitivity:** Non-Sensitive - The Information Resource does not contain any sensitive information.
 - Proprietary/Copyrights:** Non-Proprietary - No copyrights or other ownership issues. There are no distribution restrictions based solely on the proprietary evaluation.
 - Quality:** Unknown - The quality of the Information Resource is unknown and/or unevaluated.
- Unit Links and Geospatial Attributes:**

<http://wa.water.usgs.gov/projects/aircontamination/index.htm>



Next Steps



- Encourage other organizations to become members of the PNW Contaminants Workgroup.
- Update interactive map annually and solicit data from other organizations to add to the map.
- Continue and expand on collaboration.



Questions?



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