

Fish Tissue Contaminants 2015



Workgroup Conference Call Highlights

- The Workgroup welcomes a new member:
 - Ali Meils (IDEM)
- Ohio River Fish Consumption Advisory Protocol
 - 4 of 6 states and ORSANCO have signed; IL and PA have yet to sign MOU
 - PA roadblocks include lack of state policy workgroup
 - IL members are in agreement and progress is being made towards obtaining signatures (same status as 2014)

Workgroup Conference Call Highlights

- Discussed 2015 Ohio River Proposed Advisories
 - Awaiting final approval before publishing on website (orsanco.org/fca)
- Ohio River Protocol Specifics
 - List all contaminants causing >1 ml/wk advisory
 - E.g., include Hg if 1 ml/mo even if PCBs trigger 6 ml/yr
 - i.e., advisory would read “6 ml/yr – PCBs & Hg”
 - Consider a 2 ml/wk advisory category
 - For now post blanket statement identifying which species may be safer to eat more often than 1 ml/wk

Workgroup Conference Call Highlights

- Contaminant-specific discussions
 - KY can now analyze for methylmercury
 - Have noted very little total Hg / MeHg differences (i.e., 1:1 ratio)
 - ORSANCO will eliminate routine PBDE analysis
 - We had been doing ~5 samples per year, but very expensive
- State updates
 - PA published major updates to FCAs to be consistent with Proposed Ohio River Protocol
 - Thus far, no negative response to the newly updated FCAs

Mercury in Commercially Caught Fish

SPECIES	MERCURY CONCENTRATION
	MEAN (PPM)
TILEFISH (Gulf of Mexico)	1.45
SWORDFISH	0.995
SHARK	0.979
MACKEREL KING	0.73
TUNA (FRESH/FROZEN, BIGEYE)	0.689
ORANGE ROUGHY	0.571
MARLIN *	0.485
MACKEREL SPANISH (Gulf of Mexico)	0.454
GROUPE (ALL SPECIES)	0.448
TUNA (FRESH/FROZEN, Species Unknown)	0.415
TUNA (FRESH/FROZEN, ALL)	0.391
BLUEFISH	0.368
SABLEFISH	0.361
TUNA (FRESH/FROZEN, ALBACORE)	0.358
TUNA (FRESH/FROZEN, YELLOWFIN)	0.354
BASS CHILEAN	0.354
TUNA (CANNED, ALBACORE)	0.35

17 of 56 species exceed 0.3 criterion
= 30%

0 of 27 Ohio River species exceed
0.3 criterion for average concentrations

<http://www.fda.gov/Food/FoodborneIllnessContaminants/Metals/ucm115644.htm>

Ohio River (actual Hg advisories) VS US Commercial Fish (would-be Hg advisories)

	<u>Ohio River</u>		<u>Commercial</u>	
	<u># of Spp</u>	<u>% of Spp</u>	<u># of Spp</u>	<u>% of Spp</u>
Unlimited	2	7.4%	10	17.9%
1 ml/wk	16	59.3%	25	44.6%
1 ml/mo	9	33.3%	18	32.1%
Do Not Eat	0	0.0%	3	5.4%
Total	27		56	

Comparisons to Other Rivers

- Used National Rivers & Streams Assessment data
 - Hg in fish fillets from 267 U.S. rivers >5th order

Species	# of Rivers	Ohio River Rank
Smallmouth Bass	83	75 th
Largemouth Bass	70	60 th
Spotted Bass	17	11 th
White Bass	5	5 th
Sauger	5	5 th



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Ohio River Contaminants

How to follow the Advisories

Species Advisories

Carp
Catfish
Temperate Bass
Black Bass
Crappie
Freshwater Drum
Suckers
Sauger / Walleye

State Advisories Beyond the Ohio R.

Illinois
Indiana
Kentucky
Ohio
Pennsylvania
West Virginia

Contact Us

Ohio River Fish Consumption Advisories

What are Fish Consumption Advisories?

Consumption advisories provide guidance to individuals or segments of the population that are at greater risk from exposure to contaminants in fish. Advisories are not regulatory standards, but are recommendations intended to provide additional information of particular interest to high-risk groups. These advisories apply only to recreationally caught sport fish in the Ohio River, not commercial fish. The federal Food and Drug Administration establishes the legal standards for contaminants in food sold commercially, including fish.

Click on the Ohio River map or the listed color-coded units for consumption advice in your area

Unit 1 - Pittsburgh, PA to Montgomery Locks & Dam

Unit 3 - Belleville Locks & Dam to J. T. Myers Locks & Dam

Unit 2 - Montgomery Locks & Dam to Belleville Locks & Dam

Unit 4 - J. T. Myers Locks & Dam to the Mississippi River



Interested in a particular species?

(see "Species Advisories" in left sidebar)

Fishing elsewhere within the Ohio River Basin?

(see "State Advisories" in left sidebar)



QUICK LINKS



Where Do You Fish?
Advisories for each section of the Ohio River



Health Benefits
Associated with consuming Ohio River Fish



Preparing Your Meal
How to properly clean your fresh-caught fish





Ohio River Fish Consumption Advisories



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Unit 1 Advisories - 2014

Pittsburgh, PA to Montgomery Locks and Dam
Major Cities: PA (Pittsburgh and Alliquippa)

For all fish not listed below please observe the 1 meal per week advisory due to mercury and other concerns



Common Carp
(*Cyprinus carpio*)
All sizes
Do Not Eat - PCBs



Channel Catfish
(*Ictalurus punctatus*)
Less than 18 inches
6 meals per year - PCBs
-or-
Greater than or equal to 18 inches
Do Not Eat - PCBs



White Bass
(*Morone chrysops*)
All sizes
6 meals per year - PCBs



Sauger
(*Sander canadensis*)
All sizes
1 meal per month - PCBs



Walleye & Saugeye
(*Sander vitreus* & *S. vitreus x canadensis*)
All sizes
1 meal per month - PCBs



Freshwater Drum
(*Aplodinotus grunniens*)
All Sizes
1 meal per month - PCBs



Black Bass
(Largemouth, Smallmouth, Spotted Bass)
All sizes
1 meal per month - PCBs



Crappie
(White or Black)
All sizes
1 meal per month - PCBs

Other Unit Advisories

Unit 2 - Montgomery Locks and Dam to Belleville Locks and Dam

Unit 3 - Belleville Locks and Dam to John T. Myers Locks and Dam

Unit 4 - John T. Myers Locks and Dam to the Mississippi River

Please note

We are not recommending that you stop eating sport caught fish, **except where "Do Not Eat"** is shown in the advisory listing. When properly prepared, eating fish regularly offers important health benefits as a good choice to replace high fat foods. You will gain those benefits if you follow the sport fish consumption advisory carefully to: choose safer places to fish; pick safer species to eat; trim and cook your catch correctly; and follow the recommended meal frequencies. Using this advice, you will reduce your exposure to possible contaminants.

People who regularly eat sport fish, women of childbearing age, and children are particularly susceptible to contaminants that build up over time. If you fall into one of these categories, you should be especially careful to space fish meals out according to the advisory tables that follow. Your body can get rid of some contaminants over time. Spacing the meals out helps prevent the contaminants from building up to harmful levels in the body. For example, if the fish you eat is in the "One Meal a Month Group", wait a month before eating another meal of fish from any restricted category.

Women beyond their childbearing years and men generally face fewer health risks from these contaminants. However, it is recommended that you also follow the advisory to reduce your total exposure to contaminants. For these groups, it is the total number of meals that you eat during the year that becomes important and many of those meals can be eaten during a few months of the year. If most of the fish you eat are from the "One Meal a Month" category, you should not exceed 12 meals per year.

Other Concerns

Sometimes, anglers catch fish with external growths, sores, or other lesions. Such abnormalities generally result from viral or bacterial infections and may occasionally be caused by exposure to certain chemical contaminants. The appearance of viral or bacterial infections in fish may be unsightly, but there is no evidence to suggest that these infections pose a threat to consumers of these fish. **Whether or not to eat such fish is a matter of personal choice.**

QUICK LINKS



Where Do You Fish?
Advisories for each section of the Ohio River



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Mercury Temporal Trends in Ohio River Fish Tissue

- First draft of the report is complete and available for review
 - Comments from IL and ORSANCO staff have been addressed
- Results indicated possible increasing mercury levels for some TL4 taxa
 - Consistent with other studies analyzing temporal trends in Ohio River fish tissue as well as other studies from North America
- Downward trends in TL3 species are consistent with other studies and may be due to effective reductions of Hg emissions from coal-fired power plants through tightened regulations in the United States.
- Closer examination of why trends may be evident in some species, and some trophic groups, but not others is warranted.
 - An important next step will be to investigate temporal trends in total Hg and MeHg in the surrounding water