

HUDSON RIVER ANGLER STUDY

A Snapshot of Current Fish Consumption Trends on the Lower Hudson River

December 2016 • Author: Michael Garcia; contributor: Jeremiah Stone

Local surveying of anglers along the Lower Hudson River was conducted to assess the current level of consumption of fish as well as the demographics of consumers. Twenty-eight percent of those surveyed reported consuming Hudson River fish. Males of color with a reported annual household income of \$25,000 to \$50,000 were the highest represented consumers.

INTRODUCTION

The continued presence of polychlorinated biphenyls (PCBs) in the Hudson River ecosystem has established it as the largest Superfund site in the country. PCBs contaminate every layer of the river's ecosystem—water, sediment and wildlife, including many species of edible fish that subsistence fishermen rely on for food. The New York State Department of Health (NYSDOH) is engaged in a multi-year initiative¹ to warn anglers of the dangers of eating contaminated fish from Hudson Falls to the Battery in New York City.

Fish consumption advisories includes the following:

- From Hudson Falls to Troy—New York State Department of Environmental Conservation (NYSDEC) regulations are in place—catch and release fishing only, no one can take fish home.
- In the entire Hudson River—No one should eat heavily contaminated "do not eat" species: catfish, eel, walleye and gizzard shad.
- In the entire Hudson River—Women under age 50 (childbearing years) and children under 15 should eat no fish.
- From Troy to Catskill—Women above age 50 and men can eat four species up to once a month.
- From Catskill to New York City—Women above age 50 and men can eat most species up to once a month and some marine species up to once a week.

New York State fish consumption advisories are a key component of the Environmental Protection Agency's (EPA) Superfund effort to reduce the health risks to humans posed by PCB contamination².

NYSDOH's recommended restrictions on fish consumption are intended to ensure that the risks of cancer from eating PCB-contaminated fish do not exceed the EPA's acceptable range.

Upper Hudson
From the Rt. 9 Bridge to Troy Dam

Do not eat fish from the Route 9 Bridge to the Troy Dam.

From Baker's Falls to the Troy Dam, New York's State Department of Environmental Conservation's "catch and release" regulations apply.

Take No Fish. Eat No Fish.

Mid Hudson
From Troy Dam to Bridge at Catskill

Eat up to one meal a month:

 Alewife	 Rock bass
 Blueback herring	 Yellow perch

Do not eat other fish from the Mid Hudson including striped bass

¹ Hudson River: Health Advice on Eating Fish You Catch. (Feb. 2016) <http://www.health.ny.gov/publications/2794.pdf>

² US Environmental Protection Agency: http://www.epa.gov/risk_assessment/health-risk.htm

METHODS

Over the course of 90 days during the summer of 2016 Scenic Hudson and the Sierra Club partnered to gather data on current fishing and fish consumption trends by surveying anglers along the Lower Hudson River. The surveys were meant to answer two main questions: 1) How common is fish consumption today?; and 2) What segments of the population consume the most fish from the Lower Hudson?

To ensure consistency with previous angler audits conducted on the Hudson River, Scenic Hudson and the Sierra Club utilized a pre-existing angler survey used in a similar project in 1993. The current survey was refined to ensure it effectively answered the main questions posed for this project. Specifically, survey questions were purposely narrowed to capture firsthand accounts of current fishing trends and practices during the fishing season, as well as current fish consumption among anglers and their families. A total of 150 surveys were conducted at 15 locations between Troy and Peekskill from June to August 2016. The survey targeted hook-and-line anglers, but also included anglers using trapping and netting practices. An analysis of survey responses was performed to identify the most at-risk ethnic and socioeconomic groups.

RESULTS

Among anglers surveyed, 28% reported consuming fish caught from the Lower Hudson River, with the most common species consumed being bass, catfish and blue crab. Of those respondents who consume fish, 32% reported eating them in amounts and portion size exceeding NYSDOH guidelines. (Figure 1) PCB advisories are defined in portion size and meal frequencies (i.e., one meal per month or four meals per year). One meal size is considered to be an uncooked 8-ounce fillet.

Study findings indicated that currently the typical consumer of fish from the Lower Hudson is a male of color. Of those surveyed, Latino anglers reported the highest rate of fish consumption (64%), followed by African-Americans (41%)³. (Figure 2)

The most affected socioeconomic group was that with annual income between \$25,000 and \$50,000; 53% of this group reported eating fish. Data for fish consumption on socioeconomic groups is shown in Figure 3.

Current Fish Consumption Trends Compared to NYSDH Guidelines

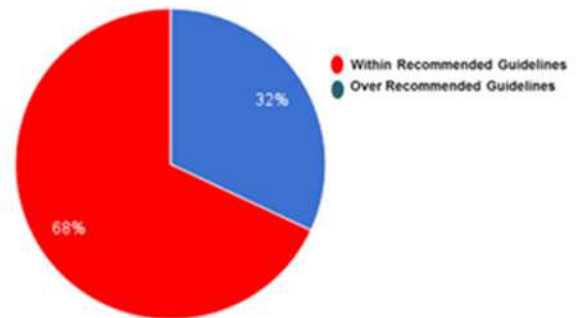


Figure 1: Current fish consumption exceeds the guidelines set by the NYSDOH

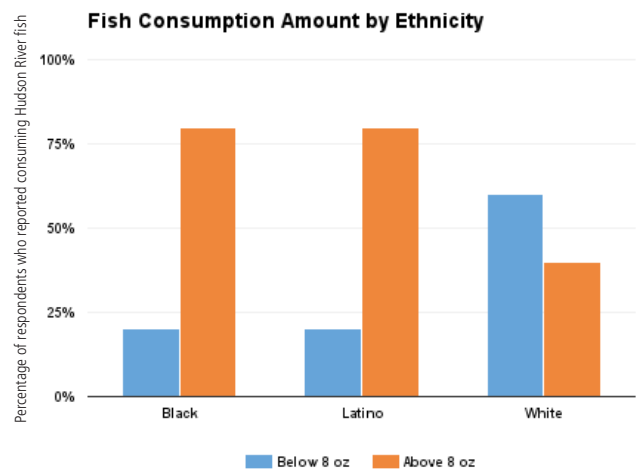


Figure 2: Current fish consumption trends by race and ethnicity when compared to recommended portion size of 8 ounces

³ The survey size for the Asian population was too small to accurately gauge the level of consumption.

When compared to the findings of the 1993 angler report, the consumption of fish from the Hudson River may have decreased among Latino and African-American anglers. However, both remain the most at-risk ethnic groups. No findings were reported on the most affected socioeconomic groups in 1993.

The recommended fish consumption was compared among different gender and age groups (as shown in Figure 4) to actual fish consumption frequency. The NYSDOH recommends that consumption of catfish and eel be avoided, while consumption of bass, white perch and carp be limited to one meal a month for men over the age of 15 and women over the age of 50.

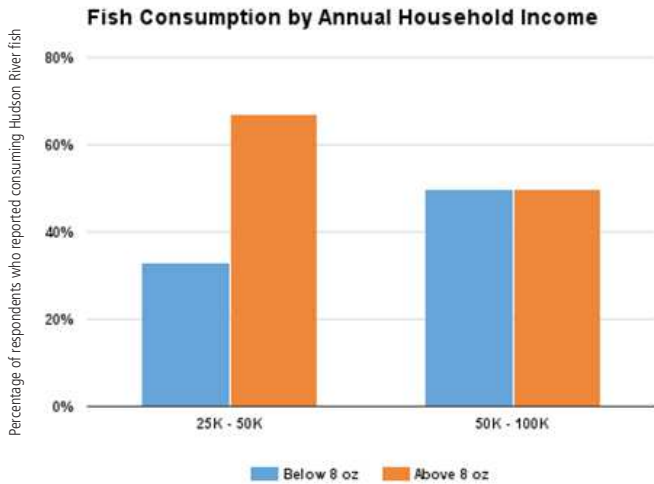


Figure 3: Over 60% of fish consumers with household incomes between 25K and 50K reported eating fish in quantities exceeding NYSDOH recommendations

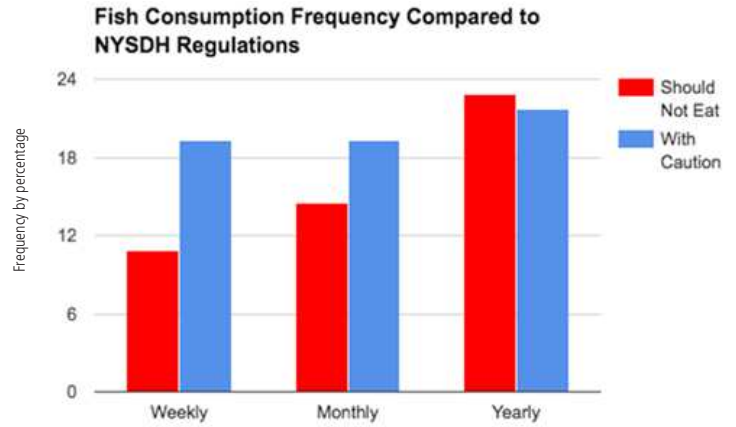


Figure 4: 32% of fish consumers are eating fish more frequently than NYSDOH recommends



DISCUSSION

Current fish consumption from the Lower Hudson River is significantly higher than recommended by the New York State Department of Health (see Figure 3), which recommends that catfish and eel be avoided and bass, white perch and carp be limited to once-a-month consumption and no greater than 8 ounces per serving. These findings are likely conservative. For instance, many Asian anglers were observed at certain locations, but language barriers limited their participation in the surveys.

Both surveyors and anglers noted difficulty in locating signage about fish consumption guidelines at many locations. At some regularly visited fishing spots, there was no signage at all warning anglers of the dangers of consuming fish from the Lower Hudson River. For this survey, there were insufficient data to correlate the rates of fish consumption to the lack of signage, but this should be considered in future angler survey efforts.

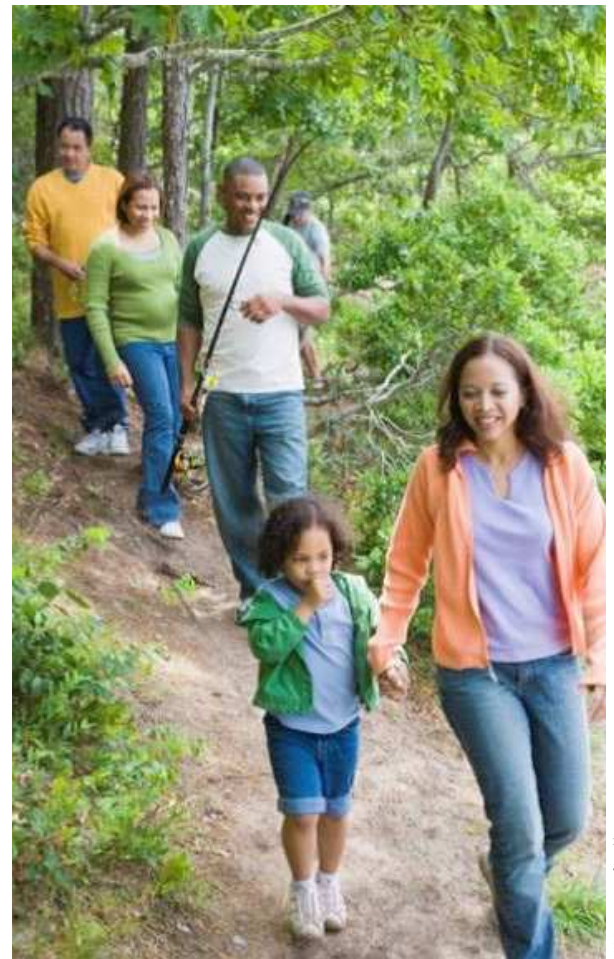
The survey also intended to characterize how many anglers shared their catch with children and women of childbearing age, but most adult anglers were reluctant to discuss and/or answer questions regarding this practice. At certain locations popular for sport fishing, surveyors observed women who were not fishing receive fish from anglers.

The commercial sale of Hudson River fish for public consumption also is an important issue that should be evaluated in a more appropriately scaled creel survey with a larger focus group.

CONCLUSION

Similar to the results of the 1993 survey, ethnic groups such as Latino and African-American remain at relatively higher levels of risk due to higher-than-recommended levels of fish consumption by both amounts and species.

Future surveying efforts should include multilingual surveyors to increase the accuracy of current fish consumption among groups such as the Hudson Valley's growing Asian population, which was represented minimally in the 1993 survey. Surveyors in 2016 observed Asians catching (and very likely consuming) species, such as pumpkinseed, not currently on fish consumption advisories but that perhaps should be considered for inclusion.



NYS Department of Health