

# GOLD COUNTRY ANGLER SURVEY

## Executive Summary



*Millions of pounds of mercury (or “quicksilver”) were used during the Gold Rush in California’s Sierra Nevada. Much of it was lost into the rivers, lakes and streams where it remains today. Mercury is a danger to humans when they eat fish from areas with mercury pollution. Mercury exposure from eating contaminated fish can cause developmental delays in children—this is why women of childbearing age, pregnant women and children under 17 need to avoid eating fish high in mercury. Women over the age of 45 and men should also limit eating fish high in mercury.*

*Despite the fact that a great amount of mercury remains in the lakes and rivers in the Sierra, and health warnings have been issued regarding eating fish at nearly every water body that has been tested, limited information is available about mercury levels in many fish, and the mercury exposure of people who eat the fish they catch from these areas.*

In 2009 and 2010, The Sierra Fund conducted a study to learn whether people who eat fish caught in Sierra Nevada lakes and rivers are being exposed to too much mercury. The purpose of The Sierra Fund’s Angler Survey was to raise awareness about people eating fish from areas with historic mercury pollution from mining, in order to stimulate additional research and policy reform and better public information to ensure better public information about mercury in Sierra fish, and to help people make good choices about the fish they eat.

Trained interviewers went to popular fishing spots, and asked people who were fishing a series of questions about their fishing activities, how much fish they ate and what kind, and whether they were aware of any warnings about eating fish. A total of 151 interviews were completed at selected fishing locations in the Deer Creek, Yuba, Bear and American River watersheds. Results of the interviews were used to calculate mercury exposure of the individual participants.

**151 anglers were interviewed at popular Gold Country fishing locations.**

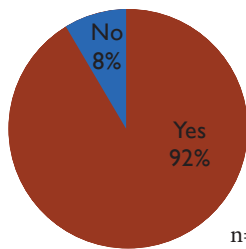
**Results of the Gold Country Angler Survey indicate that people are consuming locally-caught sport fish from mercury-contaminated water ways in amounts that exceed safe levels, and that in general there is limited understanding of the associated health hazards from eating mercury-contaminated fish.**

SEE REVERSE FOR A SUMMARY OF FINDINGS AND RECOMMENDATIONS.



# GOLD COUNTRY ANGLER SURVEY FINDINGS

Do you EVER eat the fish that you or someone you know catches?



Over 90% of people interviewed reported eating fish that is locally caught. Many reported feeding the fish they catch to children under 18, women of childbearing age, and to a lesser extent pregnant women in their household.

## Over 90% of anglers reported eating fish that was caught from mercury-contaminated areas.

The most popular fish eaten were bass and trout. This is a concern since bass and brown trout typically have the highest levels of mercury and as a result are the subject of fish consumption advisories at many Sierra water ways.

When anglers' mercury exposure was calculated, 9% of participants were exposed to more mercury than state safe eating guidelines recommend, and half of these individuals were exposed to between two and five times the safe levels.

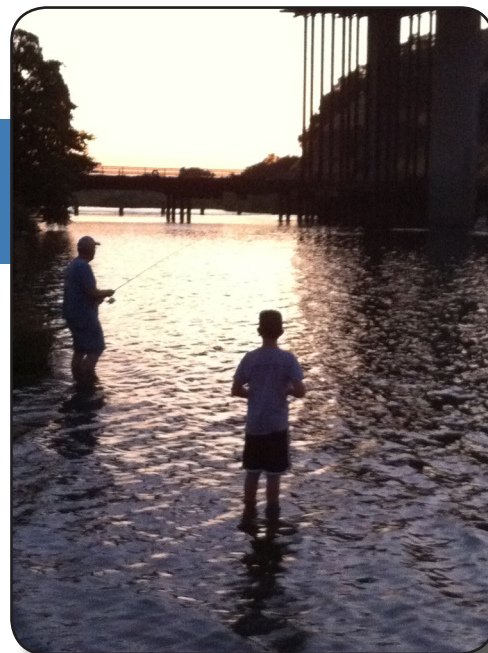
No warning signs about mercury in fish were posted at most of the fishing locations where the survey took place. In some cases, this is because existing state-issued warnings have not been posted, in other cases because more information about mercury in fish needs to be collected before warnings can be developed.

## Posted warnings about mercury-contaminated fish were not present at most fishing locations.

When asked where they get health information they really trust, participants' top answer was their healthcare providers. This fact is important because no clinics contacted in the Sierra reported providing information on the dangers of consuming mercury-contaminated fish to their patients, not even to their maternal health patients according to a study completed by The Sierra Fund first in 2006, and confirmed in 2011.

## RECOMMENDATIONS

- Signs with information about mercury in fish needs to be posted where people fish – including both state-issued safe eating guidelines, and general information about mercury
- More fish need to be tested from Sierra lakes and rivers in order to complete state-issued safe eating guidelines, and provide more accurate and complete data for calculating mercury exposure of people eating fish caught in the Sierra.
- More angler surveys need to be collected at target water ways and over a wider area, and ones that are specifically directed towards women and children, low-income and ethnic populations to help get a clear picture of mercury exposure in the Sierra, as well as inform other research efforts.
- Abandoned mine sites need to be remediated to reduce overall mercury in the environment.



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