



THE GOLD COUNTRY ANGLER SURVEY

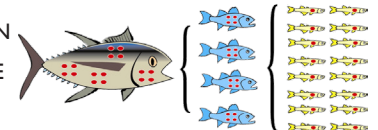
Understanding mercury exposure potential among populations that eat locally caught fish.



The primary pathway of human exposure to mercury is the consumption of contaminated fish and nearly half of the anglers surveyed at Sierra Nevada waterbodies report consuming their catch.

BACKGROUND

MERCURY WAS IMPORTED TO THE SIERRA NEVADA DURING THE GOLD RUSH FOR USE IN GOLD PROCESSING. ELEMENTAL MERCURY AT LEGACY MINES CONTINUES TO WASH OFF-SITE INTO RIVERS AND STREAMS AND NUMEROUS WATER BODIES ARE LISTED AS MERCURY-IMPAIRED UNDER THE CLEAN WATER ACT. ONCE IN AQUATIC ECOSYSTEMS EVEN SMALL AMOUNTS OF MERCURY CAN BIOMAGNIFY AND BIOACCUMULATE TO DANGEROUS LEVELS IN PREDATORY SPORTFISH.



RED DOTS REPRESENT MERCURY AND DIFFERENT FISH COLORS REPRESENT TROPHIC LEVELS. THE LARGE BROWN FISH IS A TOP TROPHIC LEVEL SPECIES AND CONTAINS THE HIGHEST CONCENTRATION OF MERCURY.

PROJECT

FROM 2009-2016 THE SIERRA FUND (TSF) COLLECTED ANGLER SURVEYS AT MERCURY-IMPAIRED SIERRA NEVADA WATER BODIES TO BETTER UNDERSTAND EXPOSURE POTENTIAL AND THE CAPACITY OF ANGLERS TO ASSESS RISK AS A RESULT OF CONSUMING LOCAL FISH. TO FACILITATE CROSS-REGIONAL COMPARISON, THIS EFFORT UTILIZED A SURVEY DEVELOPED BY THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH/UC DAVIS AND USED WIDELY IN THE BAY/DELTA.

IMPACT

TSF IS UTILIZING THE SOCIO-DEMOGRAPHIC DATA GENERATED THROUGH EIGHT YEARS OF SURVEYING NEARLY 400 ANGLERS IN FOUR WATERSHEDS TO SCOPE THE NEXT PHASE OF OUR FISH-MERCURY WORK TO THE BENEFIT OF PUBLIC HEALTH IN OUR REGION AND AT THE STATE LEVEL.

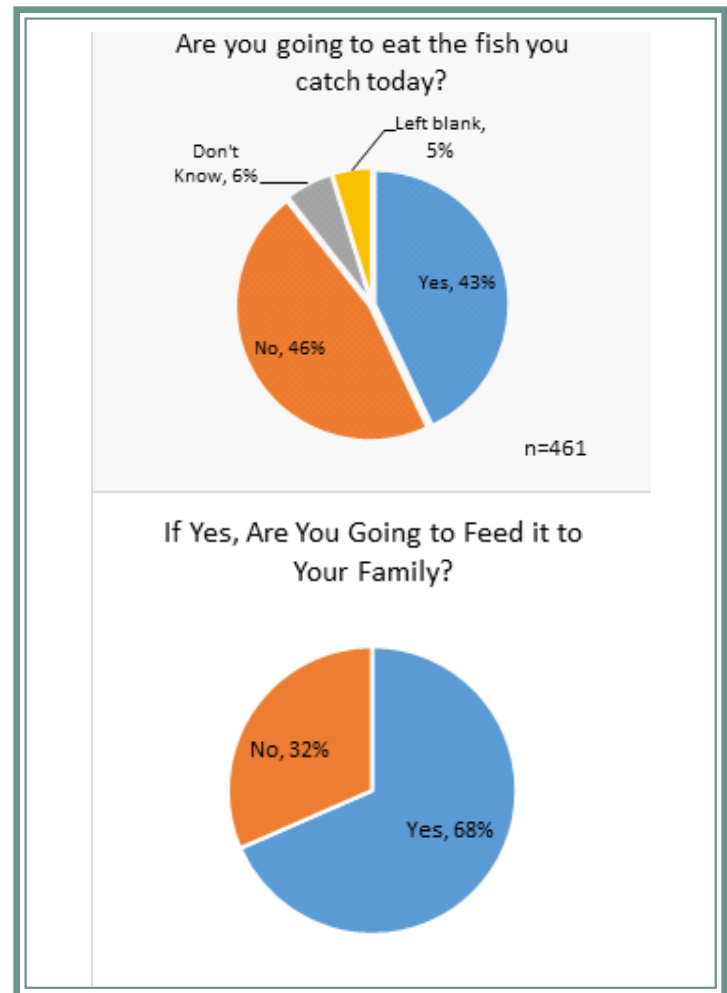


NEXT STEPS

Angler Survey findings are guiding a multi-faceted effort to increase the amount and accessibility of information on mercury in fish. Demographic data are informing the posting of fish advisories in languages other than English. Data on consumption are being used to develop fish tissue sampling plans to ensure that site-specific advisories are inclusive of all species being consumed. Finally, data on risk assessment are guiding strategies for information dissemination to ensure that anglers know how to protect their health and that of their families.

BY THE NUMBERS

374 ANGLERS were surveyed at **14 WATERBODIES**. **43% EAT** their catch and **68% FEED** it to their **FAMILIES**. **ONLY 1%** were aware that the three components of healthy fish consumption are **SPECIES, POPULATION GROUP, and FREQUENCY OF CONSUMPTION**.



Angler Survey data indicate that nearly half of those fishing at Sierra Nevada waterbodies consume their catch and most also feed locally caught fish to their families.

Source: The Sierra Fund

PROJECT FUNDERS

Past and present project funders include: The Richard and Rhonda Goldman Fund, True North Foundation, The California Endowment, the California Wellness Foundation, and the Department of Water Resources.