Fish Consumption & Human Health Criteria in Idaho

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Outline

- Where it started
- Something happened in Oregon
- EPA 2012 Disapproval
- Review of 19 Fish Consumption Surveys
- We need some Idaho data
- We need some Tribal Data
- There are a lots of different fish from lots of different places

Prelude

- 1992 – The National Toxics Rule
- 1994 CRITFC survey of fish consumption
- 2000, EPA's new Human Health Criteria Methodology
- 2002, EPA publishes new national default FCR and recommended criteria updates
- 2003, 14 more updated HH criteria

Doing the right thing?

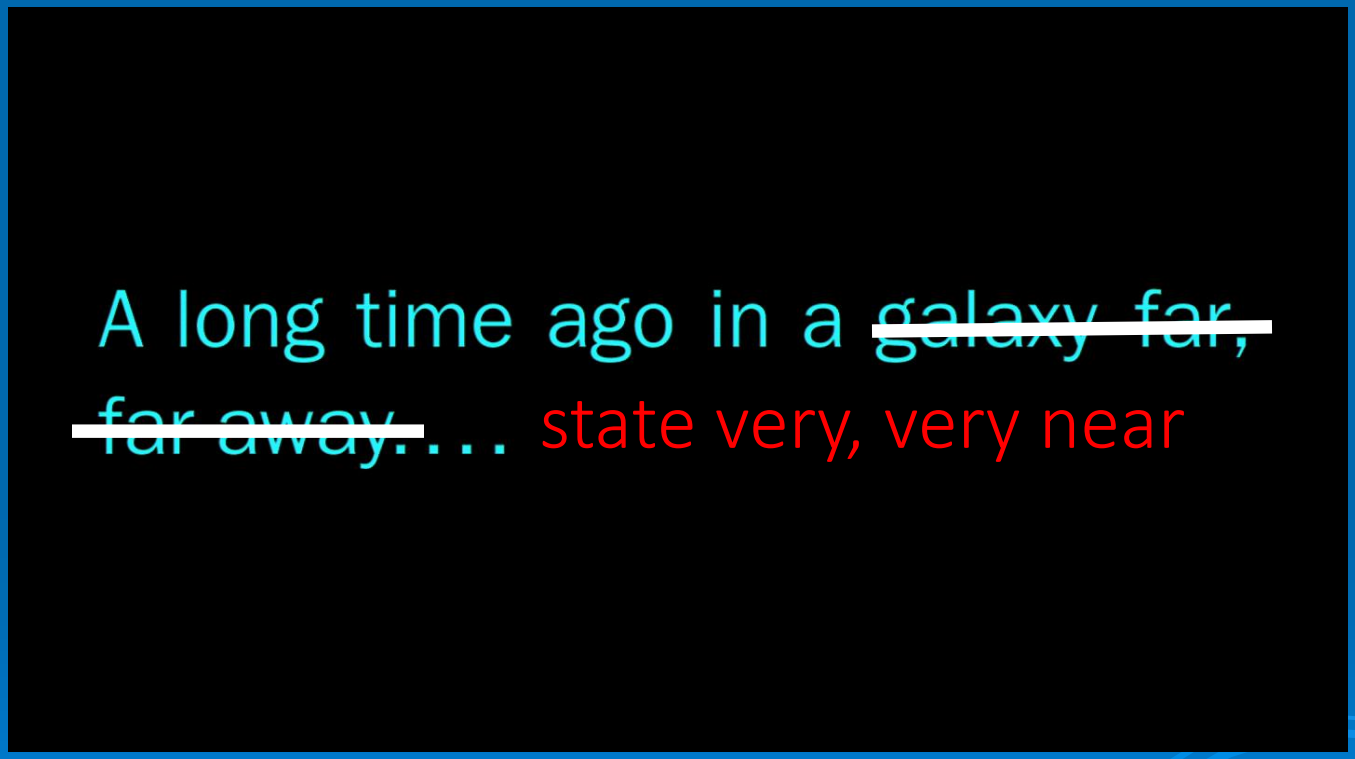
- On April 28, 2005 Idaho announced negotiated rulemaking to update its human health toxics criteria
- Rule approved by the 2006 Idaho Legislature
- Submitted to EPA on July 7, 2006

Some things new, some old

- updated national fish consumption rate
  - 6.5 → 17.5
- New toxicity data
- Some new values for a thing called ‘relative source contribution’

- Same old drinking water intake,
- Same old body weight,
- Same old BCFs
- Same old risk level,
- And same target population

Meanwhile in Oregon



Not Good Enough

- EPA disapproved Idaho's 2006 HH criteria update on May 12, 2012

  "EPA cannot ensure that the criteria derived based on a fish consumption rate of 17.5 g/day are based on a sound scientific rationale consistent with 40 CFR 131.11(a) and protect Idaho's designated uses."

“Idaho must evaluate the relevance of available information, including the studies that the EPA identified, in assessing a fish consumption rate appropriate for protecting consumers of fish taken from state waters and use that information to ensure criteria are protective of designated uses.”

To engage in rulemaking or not?

- Idaho thought EPA's disapproval was unfair, somewhat misleading
  - We had looked at the CRITFC study
  - We had done what EPA recommended nationally
  - Our criteria were improved, accounted for newer information on toxicity and exposure
- On August 6, 2012 DEQ informs EPA in writing that we will begin rulemaking

Idaho's Evaluation

- Most regional FC survey's not relevant to Idaho
  - Idaho lack's marine/estuarine waters
  - Idaho does not have a commercial fishery
- Of the 2 survey's relevant to Idaho – ASTDR 1989, and CRITFC 1994 – only the latter was of sufficient quality
- CRITFIC data was pooled, Idaho specific data was not available

We need to do an Idaho Survey

1) Obtain Funding
2) Plan survey
3) Conduct Survey
4) Analyze data and report findings

NORTHWEST
RESEARCH GROUP

INTRODUCTION
[BASE: ALL RESPONDENTS]
[PROGRAMMING: SECTION FOR TIMING]

USE INTROGP IF SAMPLE_TYPE = 01 (RDD LANDLINE) OR 02 [CELL PHONE]

INTROGP Hello. This is _____, calling on behalf of the **State of Idaho Department of Environmental Quality**.

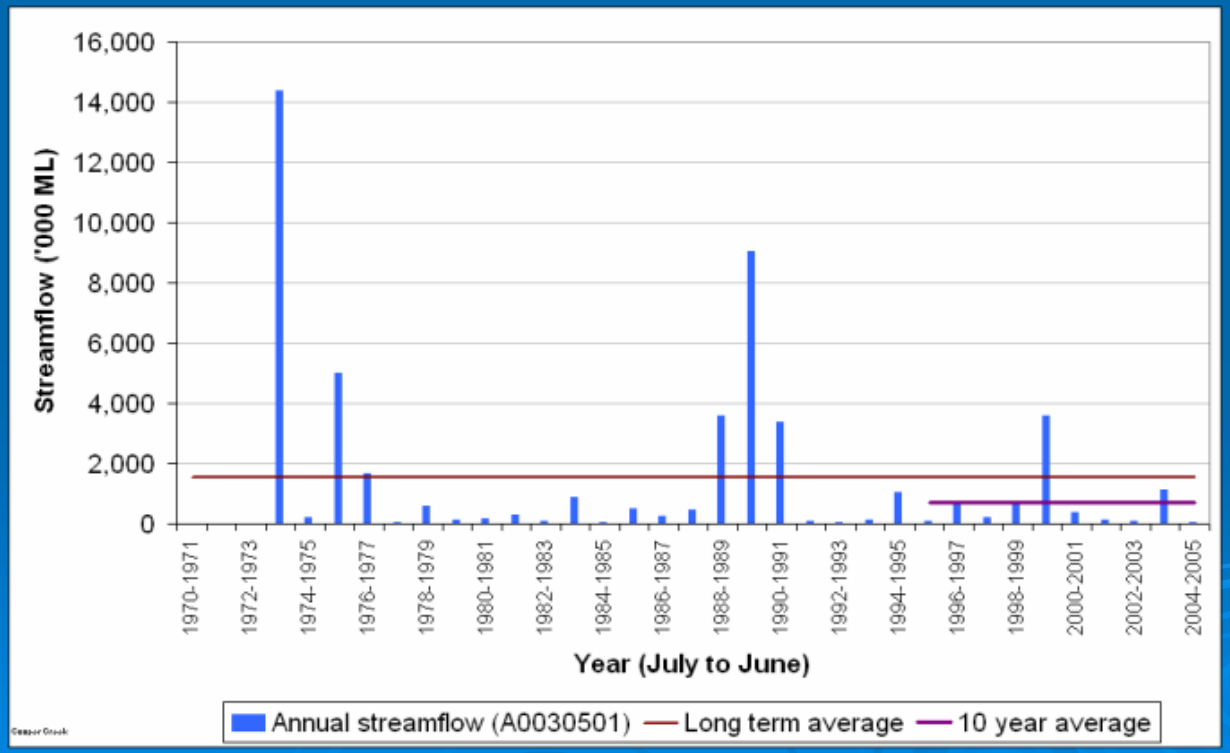
We are conducting research for the State of Idaho on fish consumption to support update of Idaho's water quality standards to protect human health. The purpose of this research is to determine the types and quantities of fish and seafood Idahoans eat as this is an important factor used in setting these standards.

Idaho Survey Considerations

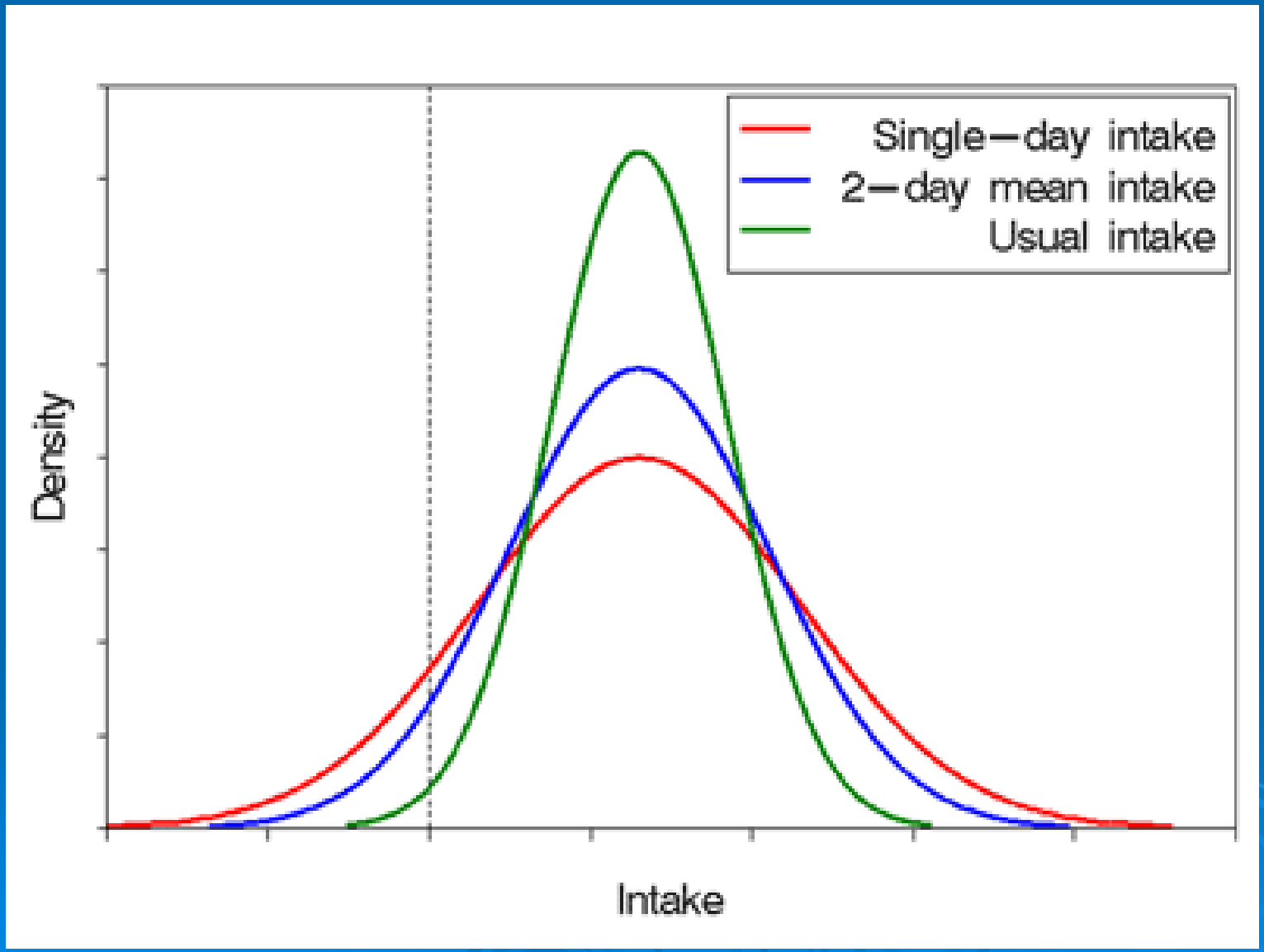
- Type of survey
  - diaries
  - creel / food frequency / dietary recall
  - In person / mail / internet / telephone
- Seasonality of consumption
- Cost
- Details of consumption?
  - Kinds of fish eaten and source
- Quality / precision of estimates – NCI Method

Usual Fish Consumption Rate

- We want to know long term average consumption – lifetime for HHC



Difficulties Posed By Intra-Individual Variation



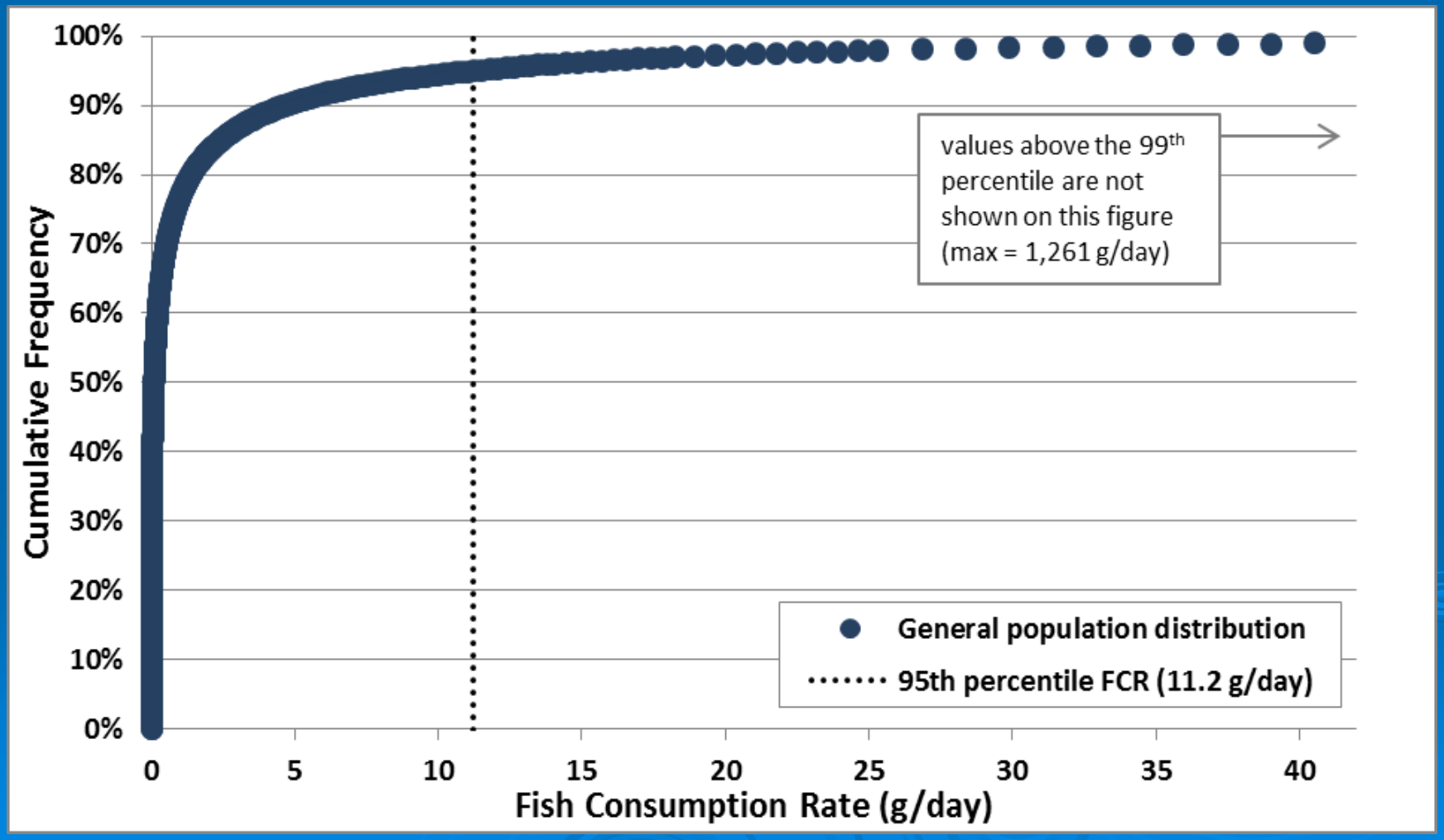
Idaho's Survey

- 1 year – April 2014 to April 2015
- FFQ and 7-day Dietary Recall
- Age, gender and geographic stratification
- Also looked at income, education and ethnicity
- Body weight

Data Analysis

- Food frequency estimate, no specifics on species
- Dietary recall – National Cancer Institute Method – 4 species groups
- Goal was distributions of consumption, not just point estimates

Fish Consumption Distribution



Tribal Efforts

- EPA Funded the five Idaho tribes to also conduct surveys
- Two – the Nez Perce and Shoshone Bannock elected to do a survey of current consumption
- We had monthly ‘collaboration’ calls
- Four tribes worked on a heritage rate estimate, aka unsuppressed

Similarities and Differences

- Year long survey
- FFQ & dietary recall
- NCI method analysis of dietary recall
- Computer assisted questioning
- Both contracted
- Both peer reviewed

- Telephone versus personal interview
- Species level data for FFQ
- 7-day versus 24-hour recall
- Who did interviewing
- Incentives
- Heritage rates

There is Data and There is How the Data is Used

- Species groupings
  - All fish or some fish?
  - If some fish which fish?
- Whose consumption do you focus on?
  - Consumers / non-consumers
  - Anglers / non-anglers
  - Other more highly exposed groups
- Distributions versus point estimates

Idaho's Proposed Rule

- Idaho resident fish (freshwater)
- Probabilistic Risk Assessment
- More stringent of criteria derived from Nez Perce Tribe and Idaho General Population
- Idaho Body Weight (80 Kg mean)
- All other inputs from EPA 2015 304(a) human health criteria recommendations
- Public comment closes Nov. 6, 2015

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http://www.deq.idaho.gov/laws-rules-etc/deq-rulemakings/docket-no-58-0102-1201/