

**STEELHEAD AND SALMON
MONITORING
IN THE
NAPA RIVER WATERSHED**

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Napa County Resource Conservation District

Napa River Fish Community



Over 50 fish species in the Napa River and Estuary

- **29 species in freshwater streams**
 - **15 natives**
 - **Salmonids**
 - **Steelhead**
 - **Chinook Salmon**
 - **Historically Coho, Chum, Pink?**

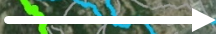
Napa River Watershed

31 major tributaries

146 stream miles
with unimpeded
access to the ocean

76 miles of streams
with limited access

Napa River Fish Trap



Steelhead

Oncorhynchus mykiss



Steelhead

Oncorhynchus mykiss

- Listed as “Threatened” under the Federal ESA
- Migratory form of rainbow trout
- Young spend 1-4 years in freshwater



Chinook Salmon

Oncorhynchus tshawytscha



Chinook Salmon

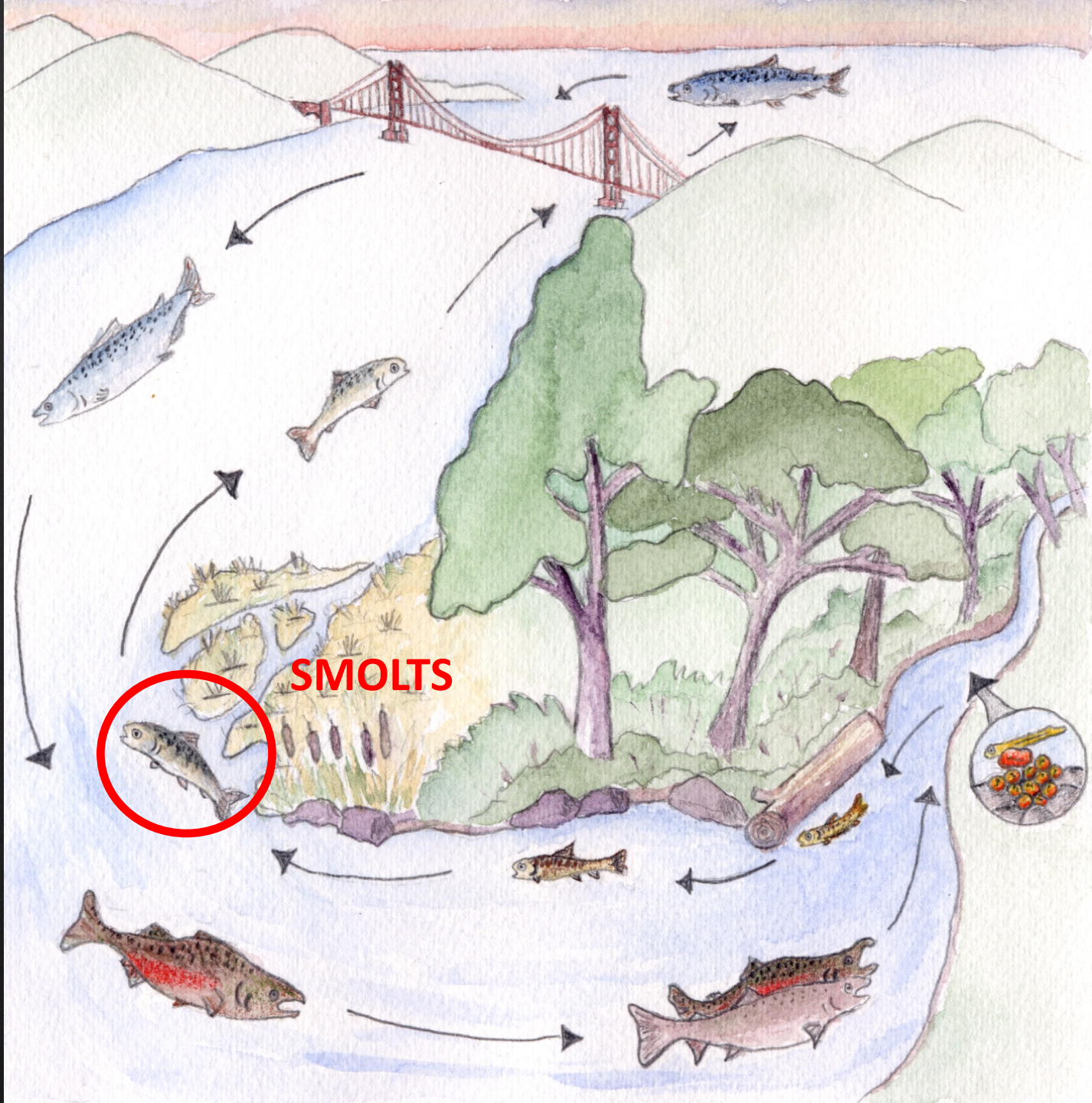
Oncorhynchus tshawytscha

- **Central Valley Fall-Run (not listed under ESA)**
- **Largest of all Pacific salmon**
- **Young leave freshwater the same year they are born**



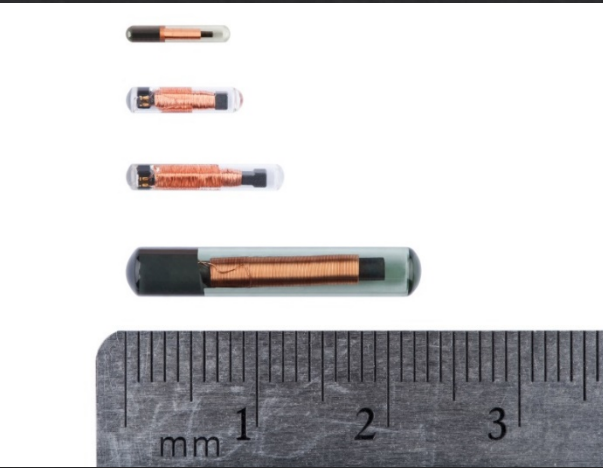
Napa River Fish Trap





SMOLTS

Tagging and Tracking



Napa River PIT Tag Antenna

What have we learned from 8 years of data?

- Steelhead smolts captured in all years
- Steelhead smolts are large: average 189mm (7.4 inches)
- Steelhead ocean survival expected to be high (15-25%)



Napa River Steelhead Smolts

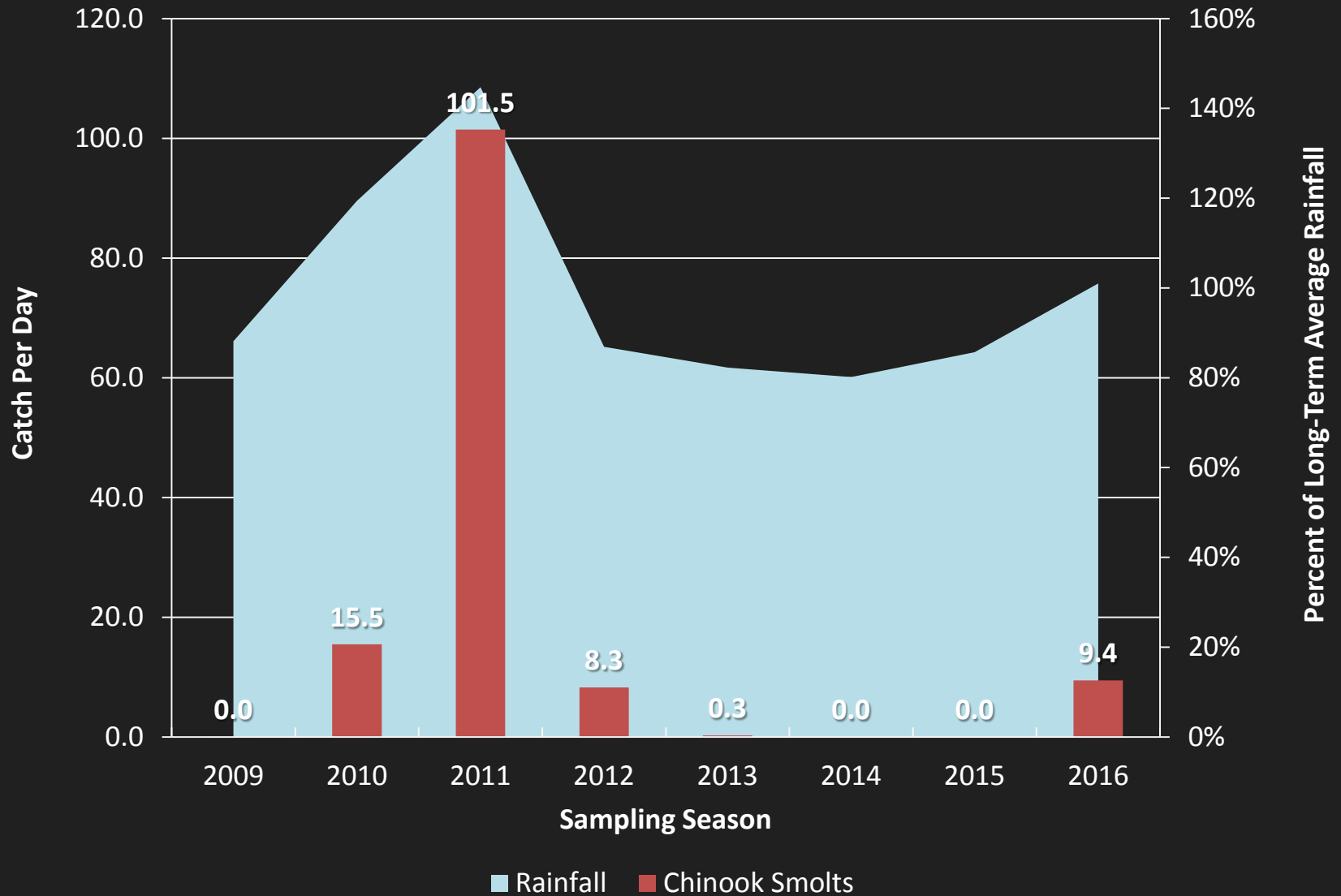


What have we learned about Chinook?

- Chinook salmon counts are highly variable from year to year
- Chinook salmon are successfully spawning in most years
- The Napa River is producing Chinook salmon smolts in most years



Napa River Chinook Smolts

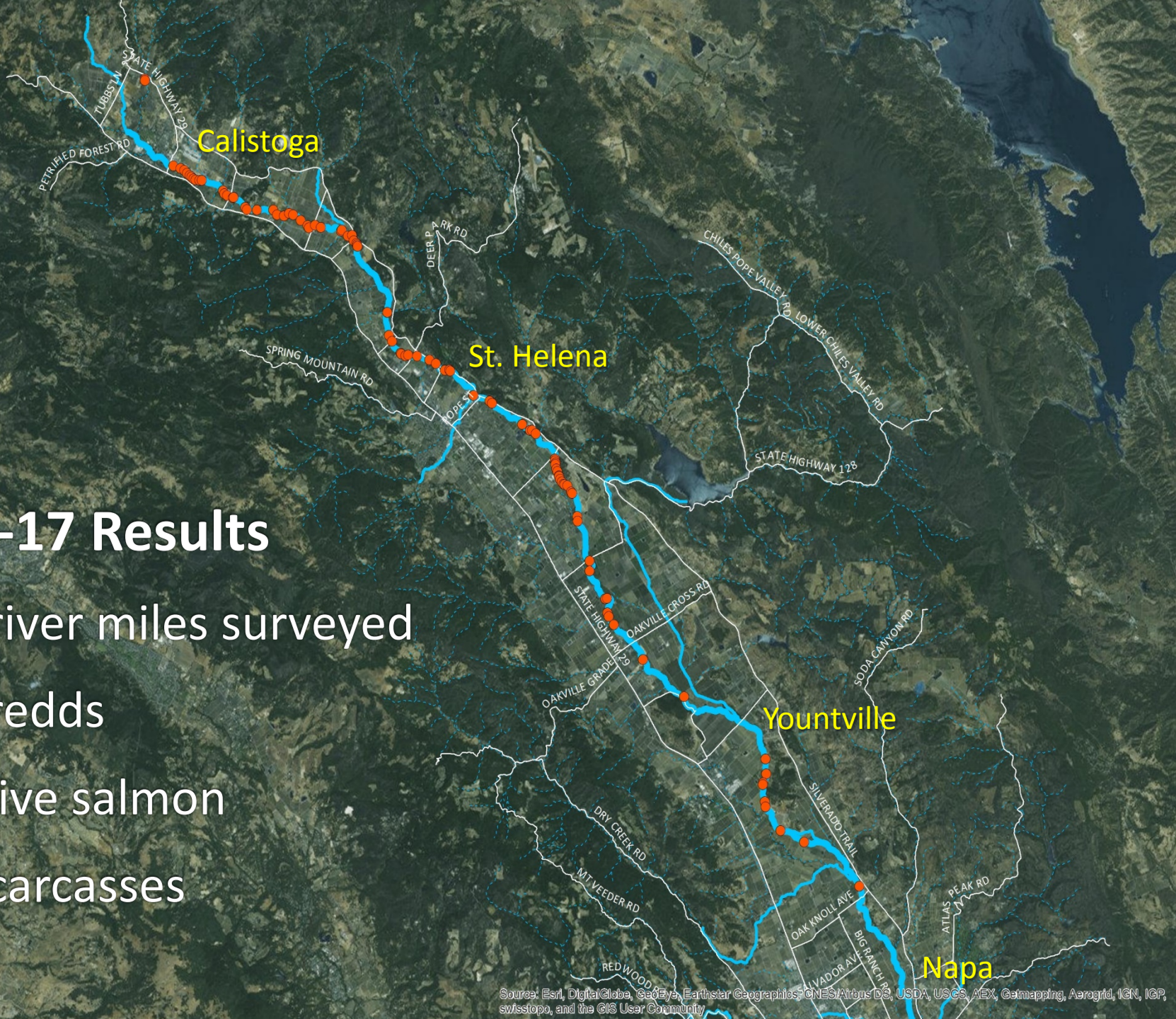


Adult Spawner Surveys



2016-17 Results

- 29 river miles surveyed
- 90 redds
- 38 live salmon
- 16 carcasses



More information available at www.naparcd.org

Thanks to:

- **California Department of Fish and Wildlife**
- **NOAA National Marine Fisheries Service**
- **California Coastal Conservancy**
- **Napa Valley Vintners**
- **Napa River Steelhead and Volunteers**
- **The Gasser Foundation**
- **Napa County Flood Control & Water Conservation District**
- **Napa County**
- **Napa County Wildlife Conservation Commission**
- **California Department of Water Resources**
- **Treasury Wine Estates**
- **Silverado Premium Properties**