Historically Abundant

The "Hitch" or "Chigh" – *Lavinia exilicauda*, Baird and Girard.
The most abundant fish in all these lakes, including Blue Lakes. They run up all the creeks, entering from the lakes in March, spawning in the shallow riffles. They are then so abundant that one can hardly step without stepping on several. They are excellent eating and people should be encouraged to use more of them.

Important for Native People

Four Historic Fish Runs

- Suckers (trapped)
- Pikeminnow (speared)
- Hitch and splittail (hand & trap)

Food

- Dried and salted
- Year-long supply

Trade with tribes

- Seaweed
- Abalone
- Beads
- Lamprey
- Salmon

UPM neg. no. S4-140398
Obtained from: Patterson (1998)

What tribes are already working on

- Creek population assessments
- PIT Tagging
- Water Quality Monitoring
- Habitat Assessments
- Spawner Surveys
- Invasive Species Management
- Fish Rescues

Robinson Specific

- Habitat Assessments
- Population assessment in streams
  - Seining and Backpack- electrofishing
- Restoration Efforts
  - Robinson Creek and Clover Creek
- Fish Rescues
- Tule re-planting
- Carp Management
- Debris Clearing and Erosion Control
- Aquifer replenishing Beaver Dam Analogs
- Working with TERA on good fire projects

Carp Impacts-Clear Lake Fishery

- CPUE for Carp and Goldfish on Clear Lake not established.
  - Above 89lbs/acre is ecologically damaging
  - We chose to complete the abundance estimate using a boat electrofishing catch per unit effort (CPUE) model
- Tagging Carp and Goldfish
  - Goal: tag 30 specimens
  - Follow them seasonally to see where they congregate
    - Net them out pre-spawn when they seasonally congregate
    - Put in net pens
    - Manage the Carp and Goldfish fishery as long as it is needed

Density/hectare = 4.71 * Carp captured per hour + 3.04

Equation 1: Electrofishing catch per unit effort (CPUE) equation of estimating density of Carp within a basin.

Table 1: Catch per unit effort (CPUE) comparison of electrofishing and gill netting.

Species	Electrofishing (fish/hour)	Gill nets (fish/net set)
Carp	4.80	0.67
Goldfish	11.10	0.00
Sacramento sucker	--	6.50
Largemouth Bass	--	4.00
Sacramento blackfish	--	1.50
Black crappie	--	2.00
Channel catfish	--	0.67

Table 2: Abundance estimate and biomass density estimate based on electrofishing CPUE averaged over all field days.

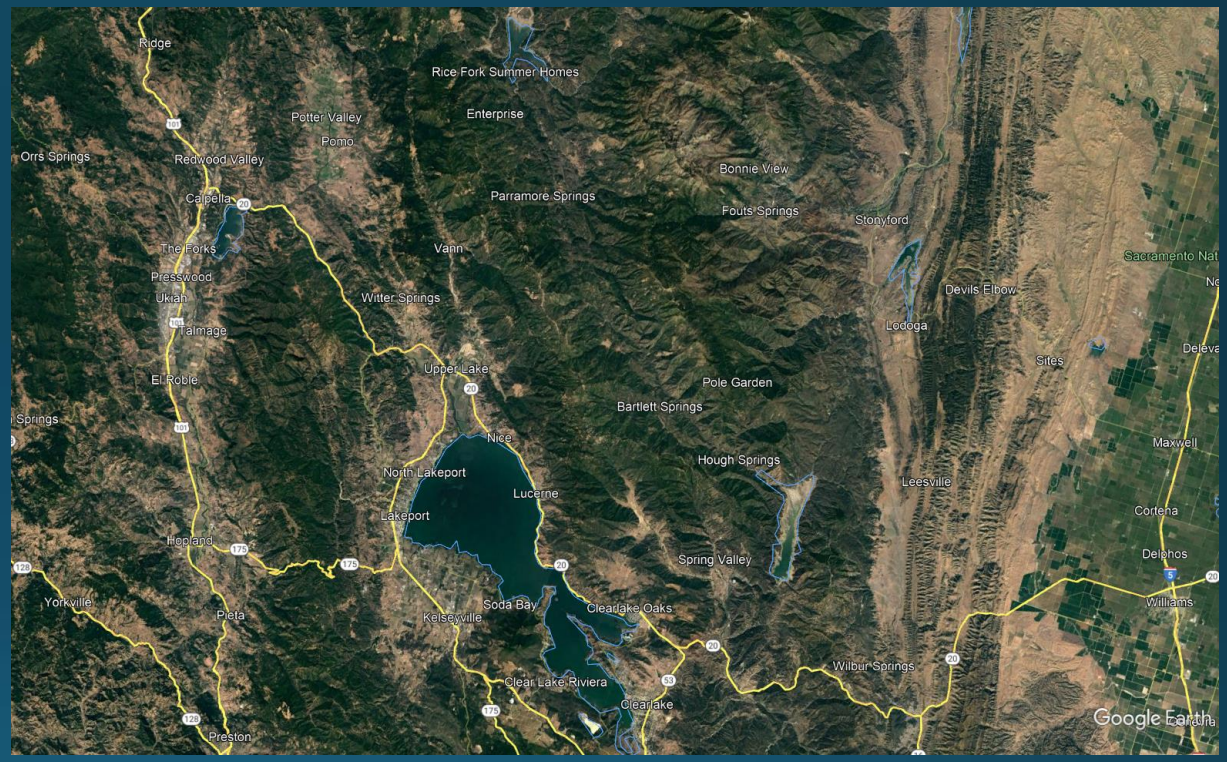
Species	Population estimate (individuals)	Biomass estimate (pounds/acre)
Carp	396,840 ± 283,505	172.8 ± 214
Goldfish	928,568 ± 335,531	64.9 ± 104

Fishing

- Family bonding
- Learning to survive
- Social setting
  - Communal, more than one village
  - Many visiting villages
- Trapping: basketry
- Gathering other materials for fishing/hunting
  - More teachings
  - Yue Wood

Robinson Ancestral Land

- Eel River, Clear Lake, Indian Valley Reservoir
  - Lots of old trade routes existed along the Russian and Eel River.
  - CRIS Center



Fish and Wildlife Important to Robinson Rancheria outside of: Lamprey, Salmon, and Trout

- Elk
  - Elk Mountain to go hunting but would go to the Eel River area to hunt and trade. These areas are now flooded by Lake Pilsbury
  - The Bloody Island massacre, men were hunting for Elk
- Sacramento Pikeminnow
  - Native to Clear Lake Basin
    - Extirpated from Clear Lake
  - Weir downstream in Garberville
    - Took Pikeminnow for consumption at the Rancheria
    - Historically, primary food staple for Indigenous populations around Clear Lake

Restoration on creeks

- Robinson Creek
  - Removal of trash in streams
  - Caging oaks along the banks
  - Willow planting
- Clover Creek
  - Himalayan Blackberry removal
  - Caging oaks
  - Willow Staking
- Scotts Creek
  - Woody Debris removal
  - Willow harvest
  - $4 million restoration project in the future

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Tribal EcoRestoration Alliance

Tribal Eco Restoration Alliance

A cross-cultural, multi-organizational collaborative that works to revitalize ecology, economy, and culture through indigenous-led land stewardship.

Speaker: Stoney Timmons

(Robinson Rancheria)

TERA and Robinson Rancheria

Willow wall at Robinson Creek

Tribal EcoRestoration Alliance

Clover Creek Restoration

Removal of invasive species and planting native species.

Tribal EcoRestoration Alliance

Cultural Burning

- Reduce old growth/ overcrowding
- Stimulates the nutrient cycle
- Allows for stronger regrowth of native plant species.

Tribal EcoRestoration Alliance

Tribalecorestoration.org

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Thank you!

Tribal EcoRestoration Alliance