

# Trout in the Classroom

Lahontan cutthroat trout can live 5-14 years, feeding on insects, zooplankton, and other fish.

# Program Description



TIC is a conservation-oriented, environmental education program that connects students to their local watershed.

Throughout the spring students monitor and care for Lahontan Cutthroat Trout eggs, raising them from egg to fry, and eventually release them into an approved nearby stream or lake.

Through this project students learn about native species, life cycles, habitats, water quality and develop a conservation ethic.

# History

- Trout in the Classroom (TIC) programs have been in place all across the country for more than 20 years.
- Most TIC programs are offered through numerous collaborations between teachers, volunteers, government agencies, and local organizations.
- The programs were designed specifically for teachers who wanted to incorporate more environmental education into their curriculum.



## TIC Goals



# Connect students to their local watershed

Teach about water quality and watershed health

Develop conservation ethic among students and community

### TIC in the Tahoe-Truckee Region "Sponsor Organizations"



SWEP







USFS

supports CA teachers in North Tahoe-Truckee Region

supports NV teachers in North Tahoe Region supports CA teachers in South Shore of Lake Tahoe

#### TIC in the Tahoe-Truckee Region Sponsor Organization Supports TIC teachers by

- Providing required TIC training workshop
- Generating required state fish & wildlife permit applications
- Coordinating LCT egg pick-up with Lahontan
  National Fish Hatchery
- Delivering LCT eggs to classrooms
- Compiling and sharing classroom resources
- Problem solving and support throughout TIC project
- Assisting with LCT release day when possible

# Time Line



 NOW: Inventory all aquarium equipment & find out what you need. Let sponsor organization know if you will need to purchase additional supplies.

- Ist Week of April: Set-up aquarium and chiller 2 weeks prior to egg delivery. Once you have determined chiller is working you can turn off chiller until 1-2 days prior to egg delivery.
- April 15/16th: Turn chiller on 1-2 days prior to egg delivery.
- <u>Tuesday, April 17th</u>: Egg Delivery Day
- Over 4-6 week period LCT will develop from egg to fry.
- Release Date: Dependent on LCT development and school calendar.

## What to Expect... when you are expecting LCT

- Egg development rates depend on water temperature. Ideal water temperature is about 52-56 degrees Fahrenheit.
- Colder water = slower
  development
- Warmer water = faster development



# Egg Stage



- LCT eggs will hatch 1-3 weeks after fertilization depending on temperature (or thermal units)
- When will they hatch?
  - . (worksheet & cheatsheet)
- Tips:

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- keep tank covered during this stage to protect eggs from UV light.
- Watch for white or fuzzy eggs and remove immediately.

# Sac Fry (Alevin) Stage

- I-2 weeks
- Newly hatched trout have a yolk sac that nourishes the young fish until it is mature enough to feed itself.
- Sac fry remain in the gravel until their yolk sack is absorbed, and they swim up.



# Fry Stage

- Once it is "buttoned-up" the fry will work their way up from gravel to the top of the tank.
- Free swimming fish and begin to feed. (Hatchery will provide fish food.)

• Feeding Tips:

Don't over-feed

o other....

• LCT fry are released into approved waterways at this stage.



### Release Day

\*\*Fish can only be released into streams and waterways approved by government agencies.

List of approved waterways.

#### <u>Tips for success:</u>

- visit site prior to release day
- transport fry in large bucket with water from tank
- set bucket in stream to allow temperature to equalize
- bring small cups for students to release fish individually



## Classroom Resources:

Links to websites, lesson plans, journal pages, videos, and more...

#### TERC website

#### SWEP website

<u>Trout in the Classroom</u> <u>Facebook Page</u>:



### Thank you to our Partners:















## Tank Set Up



### **California Fish & Wildlife Guidelines**