



# NATIVE CALIFORNIA TROUT

## 2022 - 2023

Academic Year

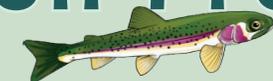
Classroom Aquarium Education Program



<https://bit.ly/StoryMapHome>



# Classroom Aquarium Education Program



## **Known regionally as Trout in the Classroom, Salmonids in the Classroom, or Steelhead in the Classroom.**

Through a classroom experience of hatching fish eggs and coordinated activities, students experience first-hand the value of aquatic environments, the balance that must be met to maintain and preserve California's fisheries and aquatic habitats, and how their personal actions affect these valuable resources.

Instructors and their students set up an aquarium in the classroom, receive fish eggs under a special CDFW permit, and observe the fish as they hatch and develop. The experience may culminate in a field trip to a local stream or river where the fish are released. This is a hands-on, interdisciplinary project for grades K-12.

The Classroom Aquarium Education Project is offered statewide in partnership with regionally-based community organizations. While the program has several names around the state, the essential learning elements and student experiences are similar. The prerequisite training workshops are held at locations throughout the state and virtually. Completion of a training workshop is required to receive eggs. Teacher training workshops are offered at least once a year in each region.

### **About this Calendar**

This calendar is designed for use by teachers hatching fish in their classroom as part of the California Classroom Aquarium Education Program (CAEP). We recognize the extraordinary steps you take in educating students on fish, habitats, and the impacts of human actions.

Every year you set up an aquarium, hatch fish, raise them for release into an approved lake, river or creek. More importantly, you guide your students to a deeper understanding of ecological concepts and the impact of human actions. You do this under a permit issued by California Department of Fish & Wildlife and the purpose of this permit is to ensure the species of fish are released into the "wild", go where they belong and do not interfere with other species, especially native and wild trout.

This calendar focuses on the 11 species of trout native to California, their habitats, and range. Understanding why these fish are special and important gives us a more clear understanding of why we only release our classroom fish into carefully selected bodies of water.

There is a lot more to this calendar than meets the eye. In the lower left corner of each page, you will find a QR code which serves as a portal into a treasure trove of curriculum, classroom activities, videos, photos, and information on fish. You will also find links to many of the important programs managed by the California Department of Fish and Wildlife that work to keep wild fish populations wild and intact. Simply aim your phone camera to the QR code and follow the website it guides you to.

Your role as an educator is crucial in this process of maintaining healthy habitat. We are grateful for your work and this calendar is one of the ways we want to both thank you and provide you with more resources to help you teach.

## Fish Hatcheries

California Department of Fish and Wildlife (CDFW) Fish Hatcheries serve an important role in the release of many fish, which include a great number of trout species.

Check out the QR code below to learn more!



<https://bit.ly/FishHatcheriesInformation>

## Heritage and Wild Trout Program

The CDFW Heritage and Wild Trout Program provides wild trout angling opportunities and strives to protect and care for California's heritage and wild trout resources.

Check out the QR code below to learn more!



<https://bit.ly/HeritageandWildTroutProgram>

## Invasive Species Program

The CDFW Invasive Species Program aspires to reduce negative effects of non-native species throughout California.

Check out the QR code below to learn more!



<https://bit.ly/InvasiveSpeciesProgram>

## Fishing in the City

The CDFW Fishing in the City Program provides aquatic resources for Californians living in urban and suburban areas.

Check out the QR code below to learn more!



<https://bit.ly/FishingintheCity>

## Justice, Equity, Diversity and, Inclusion (JEDI)

CDFW understands the importance of JEDI principles and encompass them within our programs.

Check out the QR code below to learn more!



<https://bit.ly/JEDI-Information>

# Native Trout of California



## McCloud River Redband Trout

*Oncorhynchus mykiss stoneri*



Non-native trout introductions have led to hybridization throughout most of their native range.

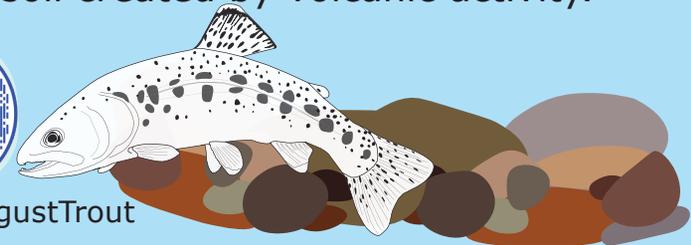
Small pure populations in headwater streams are now facing threats from climate change and extreme drought conditions.

### Did You Know?

McCloud River Redband Trout were isolated from other species of trout by the unique rocks and soil created by volcanic activity.



<https://bit.ly/AugustTrout>



# August 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9 International Day of the World's Indigenous People	10	11	12 World Elephant Day	13
14	15	16	17	18	19 World Orangutan Day	20
21	22 National Honey Bee Day	23	24	25	26 Women's Equality Day	27 International Bat Night
28	29	30	31			

# Native Trout of California



## Eagle Lake Rainbow Trout

*Oncorhynchus mykiss aquilarum*

Population declines in the 1930s and 1940s prompted the development of an artificial spawning and rearing process.

Today, that process is still necessary due to threats from non-native Brook Trout, climate change, and habitat degradation.

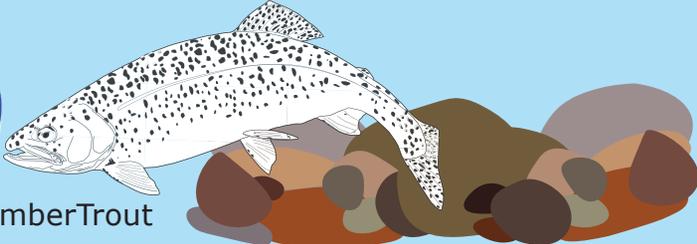


### Did You Know?

Eagle Lake Rainbow Trout are adapted to live in the high alkaline waters of Eagle Lake where no other native trout are found.



<https://bit.ly/SeptemberTrout>



# September 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1  National Hispanic Heritage Month	2	3  CDFW Free Fishing Day
4  National Wildlife Day	5  Labor Day Amazon Rainforest Day	6	7  California Biodiversity Day	8	9	10
11	12	13	14	15	16	17  World Cleanup Day
18  National Estuaries Week Begins	19  Sea Otter Awareness Week Begins	20	21  Zero Emissions Day	22  World Car Free Day	23  Native American Day	24
25  World Rivers Day & National Estuaries and Sea Otter Awareness Week Ends	26	27	28  National Public Lands Day	29	30	

# Native Trout of California



## Goose Lake Redband Trout

*Oncorhynchus mykiss* spp.

Goose Lake Redband Trout are part of a unique fish assemblage endemic to the Goose Lake watershed.

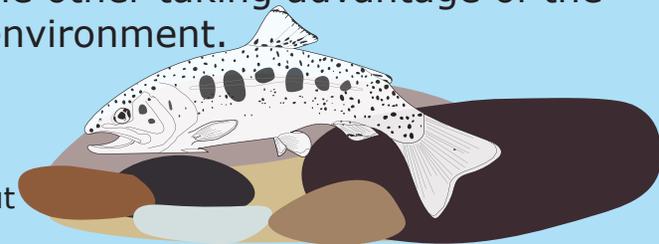
Drought and human related habitat degradation have been the primary threats to these fish.

### Did You Know?

At times Goose Lake's water conditions are uninhabitable, so they have evolved two different life history strategies. One living in the stream and the other taking advantage of the lake environment.



<https://bit.ly/OctoberTrout>



# October 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1  Global Diversity Awareness Month
2	3	4	5	6	7	8
9	10  Indigenous Peoples' Day & World Mental Health Day	11  World Animal Day	12	13	14	15
16	17	18	19	20	21	22
23	24  Bat Week Begins 24-31	25	26	27	28	29
30	31					

# Native Trout of California



## Paiute Cutthroat Trout

*Oncorhynchus clarkii seleniris*

Geologic uplift events created waterfalls that isolated the Paiute Cutthroat Trout into a single watershed in the Eastern Sierras.

They are considered one of the rarest trout in North America.



### Did You Know?

Paiute Cutthroat Trout were saved from extinction by Basque shepherds who moved them in coffee cans above Llewellyn Falls in 1912 preventing crossbreeding with non-native Rainbow Trout.



<https://bit.ly/NovemberTrout>



# November 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1  Native American Heritage Month	2	3	4	5
6	7	8	9	10	11	12
13	14	15  America Recycles Day	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

# Native Trout of California



## Little Kern Golden Trout

*Oncorhynchus mykiss whitei*

Like some other trout species in California, Little Kern Golden Trout are currently listed as a threatened species under the Federal Endangered Species Act.

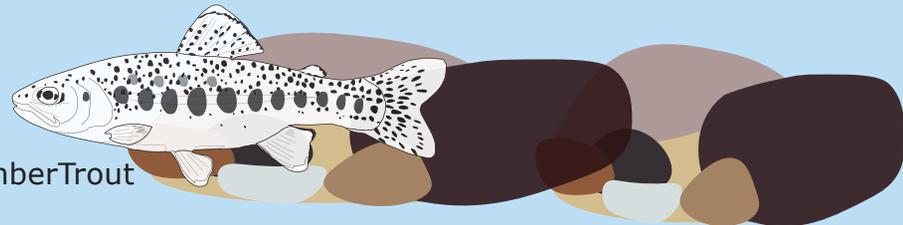


### Did You Know?

Little Kern Golden Trout are native only to the Little Kern River watershed. Their range has been reduced due to widespread hybridization with hatchery stocked Coastal Rainbow Trout.



<https://bit.ly/DecemberTrout>



# December 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3 International Day of Persons with Disabilities
4 Wildlife Conservation Day	5 World Soil Day	6	7	8	9	10 International Human Rights Day
11 International Mountain Day	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

# Native Trout of California



## California Golden Trout

*Oncorhynchus mykiss aguabonita*

The California State freshwater fish is native to Golden Trout Creek and the South Fork Kern River.

Hybridization with non-native trout and long-term grazing activities have threatened California Golden Trout.

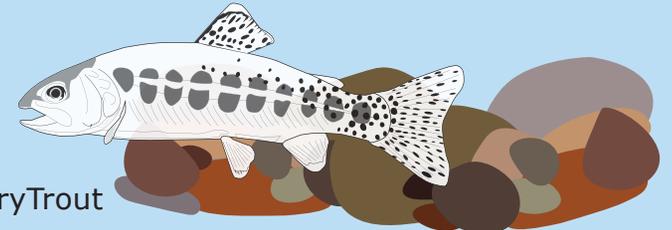


### Did You Know?

California Golden Trout are the State Freshwater Fish of California and they are known as one of the most beautiful trout across the world.



<https://bit.ly/JanuaryTrout>



# January 2023

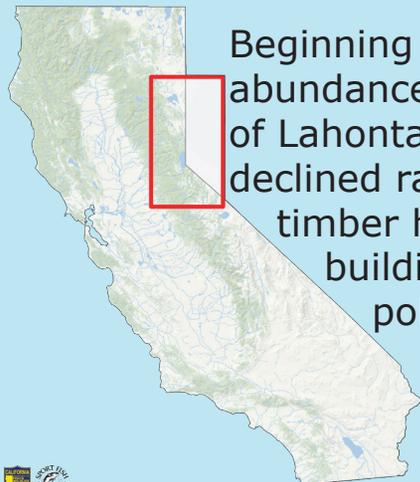
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1  New Year's Day	2	3	4	5  National Bird Day	6	7
8	9	10  Houseplant Appreciation Day	11	12	13	14
15	16  Martin Luther King Jr. Day	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				



## Lahontan Cutthroat Trout

*Oncorhynchus clarkii henshawi*

Beginning in the 1800s, the abundance and distribution of Lahontan Cutthroat Trout declined rapidly due to mining, timber harvest, road and railroad building, water diversion, pollution, non-native fish introductions, and commercial harvest.



### Did You Know?

Lahontan Cutthroat Trout are the largest inland trout species, reaching upwards of 10 pounds in many environments and individuals reaching 40 pounds being reported in high desert lakes.



<https://bit.ly/FebruaryTrout>



# February 2023

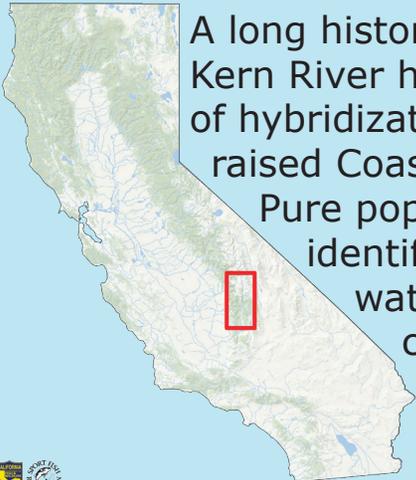
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 Black History Month	2 World Wetlands Day	3	4
5	6	7	8	9 World Marine Mammal Protection Day and World Whale Day	10	11 International Day of Women & Girls in Science
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27 International Polar Bear Day	28				



## Kern River Rainbow Trout

*Oncorhynchus mykiss gilberti*

A long history of stocking in the Kern River has led to high rates of hybridization with hatchery raised Coastal Rainbow Trout. Pure populations have been identified in the upper watershed which may hold conservation potential.

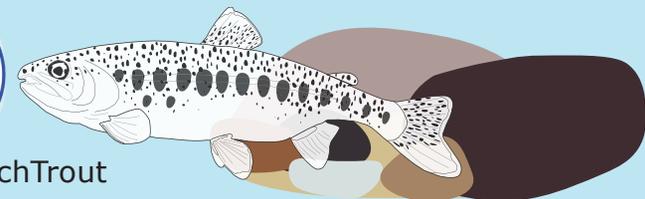


### Did You Know?

Kern River Rainbow Trout inhabit a U-shaped glacially carved valley with towering walls and seasonal waterfalls.



<https://bit.ly/MarchTrout>



# March 2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 Women's History Month	2 Solar Appreciation Day	3 World Wildlife Day	4
5	6	7	8	9	10	11
12 Plant a Flower Day	13	14	15	16	17	18
19	20	21 International Day of Forests	22 World Water Day	23 World Meteorological Day	24	25
26	27	28	29	30	31	

# Native Trout of California



## Warner Lakes Redband Trout

*Oncorhynchus mykiss* spp.

Distribution in California is limited to the northeast corner of the state, so most conservation actions have occurred in Oregon.

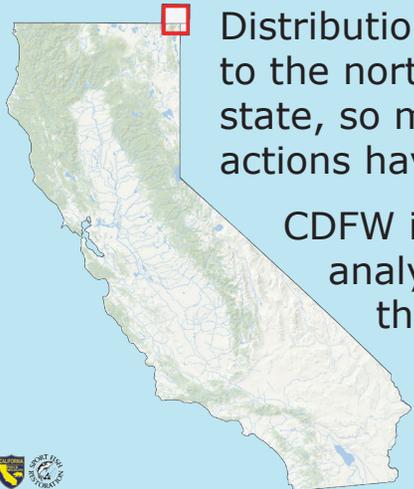
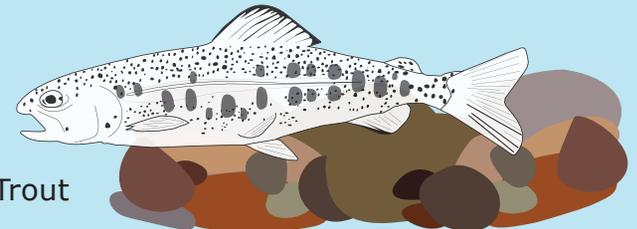
CDFW is conducting a genetic analysis to better understand their relationships with other forms of Redband trout.

### Did You Know?

Warner Lakes Redband Trout rarely exceed 12 inches in length because of the small size of the streams they occupy.



<https://bit.ly/AprilTrout>



# April 2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1  International Volunteer Month Begins
2	3  World Aquatic Animal Day	4	5	6	7	8
9  National Environmental Education Week Starts	10	11	12	13	14	15  National Environmental Education Week Ends
16	17  Bat Appreciation Day	18	19	20	21	22  Earth Day
23  30	24	25	26	27	28	29  Arbor Day & Save The Frogs Day

# Native Trout of California



## Steelhead Trout

*Oncorhynchus mykiss irideus*

Most populations in California are listed as endangered or threatened under the Federal Endangered Species Act.

Spawning habitat has been severely reduced due to dams and water diversions, agriculture, and other land use practices.

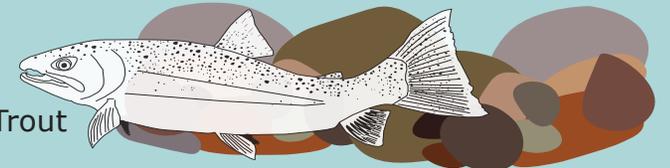


### Did You Know?

Steelhead trout are the anadromous form of Coastal Rainbow Trout, meaning they spend part of their lives in the ocean and return to the rivers to spawn.



<https://bit.ly/MayTrout>



# May 2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1  International Compost Awareness Week	2	3	4	5	6
7	8	9	10  World Cactus Day	11	12	13  International Migratory Bird Day
14  Mother's Day	15	16  Love a Tree Day	17	18	19  World Endnagered Species Day	20  World Bee Day
21	22  International Day for Biological Diversity	23  World Turtle Day	24	25	26	27
28	29	30  Water a Flower Day	31			



## Coastal Cutthroat Trout

*Oncorhynchus clarkii clarkii*

In California, Coastal Cutthroat Trout are at the southern edge of their range which extends north along the Pacific Coast to Alaska.

Intensive timber harvest has led to habitat loss throughout their range.

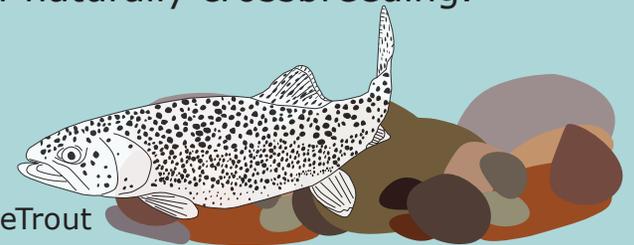


### Did You Know?

Coastal Cutthroat Trout share their range with native Coastal Rainbow Trout and are capable of naturally crossbreeding.



<https://bit.ly/JuneTrout>



# June 2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1  LGBT Pride Month National Trails Day	2	3  Invasive Species Action Week Begins
4	5  World Environment Day	6	7	8  World Oceans Day	9	10
11  Invasive Species Action Week Ends	12	13	14	15  Global Wind Day	16  World Sea Turtle Day	17
18  Father's Day, Juneteenth, and National Trails Day	19	20	21	22	23	24
25	26	27	28	29	30	

# Native Trout of California



## Trout Predators

Native trout provide a critical role in maintaining healthy food webs, transferring nutrients from smaller organisms to larger animals.

This puts them at the center of many conservation and management efforts.

### Did You Know?

Many species rely on trout as a food source both during the warm summer months and to help them through the harsh winters.



<https://bit.ly/JulyTrout>

# July 2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3 World No Plastic Bags Day	4	5	6	7	8
9	10 Don't Step on a Bee Day	11 World Population Day	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31 World Ranger Day					



**We appreciate all those who contributed to this project. Together, we created a resource for teachers across California.**

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Cover Image created by Ed Huff, Mission Peak Fly Anglers

(Copies of) Original oil paintings by Kyle Hailey, California Department of Fish and Wildlife. Mr. Hailey studied illustration, painting, drawing and computer graphics and has a MFA in Fine Arts and printmaking.

Conservation Messages and 'Did You Know?' statements written and edited by Lee Duckwall, Environmental Scientist, California Department of Fish and Wildlife

**Special thanks to:**

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