

CALIFORNIA TROUT



MALIBU CREEK

A TURNING POINT IN CALIFORNIA HISTORY

Several years of investigation have revealed a unique natural resource and the opportunity to arrest and reverse the tide of decline for one of Californian's prized native fish. A remnant run of one of our state's most precious fish, steelhead, has now been documented to live in Malibu Creek, just a few miles from 16,000,000 citizens of Southern California. This population is believed to be the southernmost native steelhead population in North America. It's existence represents an opportunity to turn the inexorable century old march northward of steelhead extinction on the west coast of the United States.

Steelhead are a species of fish who utilize both fresh and saltwater during their lives, but unlike their relatives salmon, do not always die after they spawn at their place of birth. Named for their adult coloration of steel blue and silver, steelhead are second only to California's state fish, the Golden Trout, in glamor and legend. For the first one or two years of their lives, steelhead remain in their native streams and there is little difference in their appearance from resident rainbow trout. After they migrate to sea, they spend from one to three years growing in size and strength, where some in California may exceed 36" in length and weigh over 20 pounds. Upon maturity, steelhead home in on their place of creation to fulfill their reproductive instinct. During this once per year event, adult female steelhead may contain 4,000 eggs. It is rather uncommon for significant numbers of steelhead to wander to other waters.

Through the selective process of nature, steelhead are a highly adaptive species who only require cool clean waters and streams free of major barriers to their spawning runs. Knowledgeable biologists believe the native gene pool of each individual steelhead population have developed special abilities to utilize the unique characteristics of each isolated tributary to the ocean.

No one who has seen or caught a fresh-run adult steelhead will forget the experience.

THINGS YOU SHOULD KNOW ABOUT THE STEELHEAD OF MALIBU CREEK

- The number of adult steelhead returning annually to Malibu Creek varies, but recent observations indicate a range of 20 to fifty adults. Over sixty 6 to 12 pound steelhead were seen in the Winter of 1983 .. a very wet year.
- Juvenile steelhead, commonly are found in the three miles of Malibu Creek from the ocean upstream to the base of the Rindge Dam. While in the stream

(1988)

individual year classes are uniform in their size, color and shape. Only trained eyes can differentiate between young steelhead and resident rainbow trout. Yearling steelhead become "smolts" and migrate to sea in the late Winter of their second year after reaching 10" length.

- Not all juvenile's survive the rigors of life in the first years of the fresh water life. Those that do not, provide important contributions to the natural ecosystem providing forage for numerous species of birds and mammals. This natural selection process sorts out the weak, while providing a basis for healthy environmental diversity.
- The adult upstream spawning run is considered to also occur in late Winter, with adults quickly moving upstream. Shortly after completing their reproductive function, these adults, called "kelts", are believed to promptly leave the stream for the ocean. Dead post-spawn adults have not been observed along the stream.
- Department of Fish and Game files contain evidence that the genetic make-up of steelhead in Malibu Creek have never been tampered with through stocking of artificially reared steelhead fingerlings. While little is known of the exact origin of these fish, all indications are they are the descendants of thousands of generations of native steelhead who called their home Malibu Creek.
- Due to the needs of steelhead to use both fresh and saltwater, they provide an excellent indicator species of environmental health and safety. In simple terms, the native steelhead of Malibu Creek are the "canary in the coal mine" of this ecosystem, including the Malibu Creek watershed and Santa Monica Bay.
- Once the existence of the rare population was confirmed, California Trout pressed for and won protective angling regulations. Fishing is prohibited during periods when adults may frequent the stream ... and catch-and-release angling with no harvest during the balance of the year.
- While it is remarkable this run exists, visionaries are convinced that this small population of native fish may possess the unique characteristics to launch a recovery plan for many of Southern California's western slope streams in the Angeles, San Bernadino, and Cleveland National Forest. Why? This population has adapted to overcome the greatest limiting factor for trout species in Southern California ... high water temperatures in summer. This natural process of selection and adaptation may be a blessing beyond exaggeration.

WHAT NEEDS TO BE DONE?

- The Rindge Dam constructed three miles upstream from the Pacific is confining steelhead to only a fraction of habitat historically available. The dam, with it's 100 foot concrete face, poses a barrier insurmountable for steelhead to overcome. Over 50 miles of life giving habitat is available above the dam ... a 1,500% increase!

- The Rindge Dam is completely filled with sediments, abandoned, and provides no benefit to man or beast. Additionally, some professional contractors believe the dam's age and date of construction, with potentially inferior design, poses a real threat of disaster to both private and public property downstream.
- The dam isolates the entire population along one of the most heavily traveled corridors in the Santa Monica Mountains. This exposes the rare run of steelhead to the intensified potential of massive fish kills due to pollution spills and accidents.
- Many miles of Malibu Creek both above and below the Rindge Dam are owned and administered by the State of California. This is both a blessing and major liability to Californians.
- The California agency responsible for dam safety has "decommissioned" the deserted dam, and therefore pretends Rindge Dam does not exist. The agency ignores questions about structural integrity and safety. This alarming circumstance should be given a high priority by the Department of Water Resources, Division of Dam Safety.
- The Rindge Dam must be dismantled and Malibu Creek restored ... the sooner the better!
- Future research must be conducted to illuminate the special characteristics of the native steelhead. Such things as accurate numbers of returning adults, size of juvenile population, and their entire life cycle. While plans call for additional research by volunteers and the resource managers, these must be expanded.

WHAT YOU CAN DO!

Become a supporter of this inspiring story by making a charitable, tax-deductible donation to California Trout, the organization which is shepherding the project.



CALTROUT STATE HEADQUARTERS
870 Market St., #859, San Francisco, CA 94102

YES, I believe in the goals and objectives of CalTrout and wish to be enrolled as a new member. Enclosed please find \$ _____

NAME OF NEW MEMBER _____

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PLEASE INDICATE: \$20.00 Regular Member \$100.00 Sponsor
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Membership is on a calendar year basis. (If you join CalTrout in July through December, pay only one-half the scheduled dues.) All members receive subscription to CalTrout publications, free emblems, and full voting rights.

For future information, please contact CalTrout's Regional Manager, Jim Edmondson, (818)579-1248.

4-Year Struggle to Save Steelhead Enters New Phase

By Stewart Allen

The steelhead trout of Malibu are one step closer to regaining their former roaming grounds.

A group of private citizens has come up with a unique approach to getting funding for the "fish ladder" that would help the trout over Malibu Creek's Rindge Dam and back to their old breeding grounds. They're going to make a commercial of it.

Headed by construction engineer Victor Grotlisch of G. E. Hetrick and Assoc., the group is forming a non-profit company to make a film of the steel head's dilemma and its potential solution. The company then plans to take the film to corporations, which in return for funding the project, would use it in a series of "environmentally sensitive" commercials in the manner of the well-known Chevron ads.

"So far we've had unbelievably good response from the CEOs we've approached," said Grotlisch. "All we've got to do is make the film and the bucks will come rolling in."

Grotlisch, who has offered his company's work at cost, says he has already talked with several major petroleum and beverage corporations, whose names he requested not be used. A well-known pop group, one of whose members lives in the area, has agreed to provide music for the projected commercial.

Why all the fuss about a fish?

The steelhead trout is a magnificent

creature that reaches up to 42 inches in length and up to 20 pounds. Cherished by fishermen and environmentalists alike, it is a "red-blooded" fish that lives in both fresh and salt water, like its near cousin the salmon. The small school that spawns in Malibu Creek is all that is left of the species' southern strain which inhabited streams as far south as Mexico.

Until only three years ago the Malibu strain was considered extinct. But since

opponent — the 125-foot-high Rindge Dam.

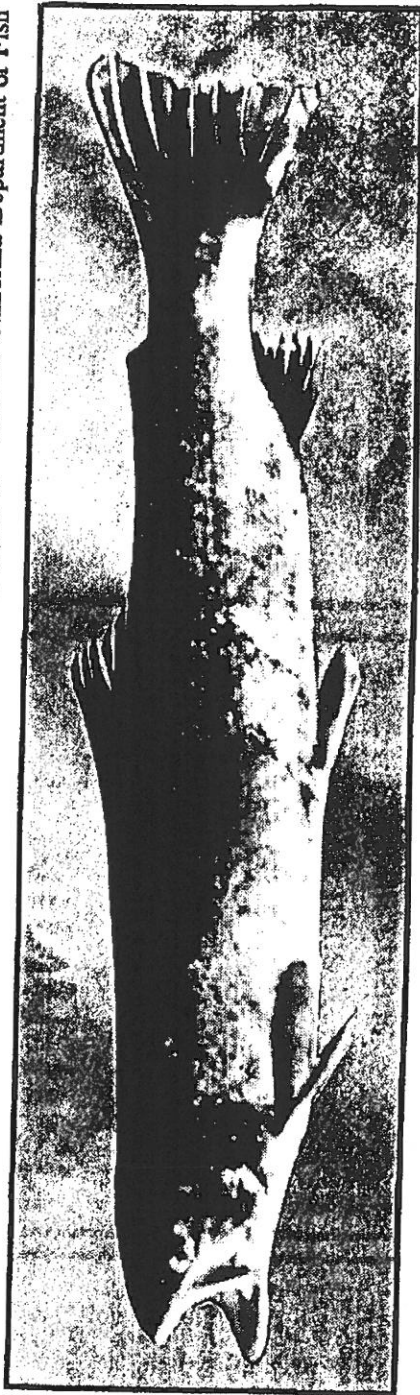
"The focus is getting the fish beyond that obstacle," said Jim Edmonson of the California Trout Assn.

Edmonson, whose organization has been heavily involved in solving the problem, would like to see the dam removed. The catch is the cost — an estimated \$42 million.

Enter the fish ladder — a series of

said Edmonson. The ladder also would eliminate the fear that a single spill from the Tapia Water Treatment Plant, which lies just above Rindge Dam, would eliminate the surviving fish.

The idea has been received favorably by the state Department of Fish and Game. This year the department requested \$640,000 to fund the project but has made it a low priority. Last week, representatives from the California Department of Fish



A MALIBU STEELHEAD — Taken from Matibu Creek, this specimen was more than two feet long. It is now illegal to fish for local steelhead.

an exhaustive 1985 survey — headed by Malibuite Giles Manwaring — proved they still existed, environmentalists, bureaucrats and sports fishermen have teamed up to strengthen the fish's tenuous hold in Malibu. So far there has been only one

artificial cascades built into the dam's wall, allowing the trout to reach the other side. If the ladder were to work out, it would increase the animal's breeding ground 1,500 percent and allow the existing 50 fish to grow to a population of up to 1,000,

and Game, Parks and Recreation and Dam Safety hiked out to the dam for some preliminary measurements.

"It's a historic run," said Chuck Marshall

Special Feature

Malibu's Steelhead Are up the Creek, without a Ladder



according to state officials.

Malibu's fascination with steelhead is hardly a new phenomenon. The Chumash Indians used the fish as both a food source and a religious, almost "god-like," symbol, according to Edmonson. Sea-dwelling fish figure in Chumash rock art and it seems fairly certain the fish's annual pilgrimage upstream was a part of some sort of rebirth ritual.

"There would have been ceremonies celebrating the catch, a festive feast celebration," said Charlie Cook, a Chumash descendant and authority. "They would know through the solstice, when the return

would occur." Adult steelhead spend most of their life at sea, returning to Malibu Creek in February when the rain-swollen creek bursts through the ridge separating Malibu Lagoon from the sea. The stream of fresh water sends the waiting trout into a frenzied struggle upstream, where they spawn and return to the sea. The newborn follow nine months to a year later.

(Editor's note: It is illegal to fish in Malibu Creek during steelhead spawning season and illegal to fish-and-harvest steelhead at any time of the year.)



Malibu Times staff photos by Ruth Chambers
PRISTINE WATERS—Reporter Stewart Allen takes a break from his vigorous hike to the Rindge Dam.

DANG DAM—Environmentalists want to build a fish ladder up Rindge Dam to save steelhead trout.

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assistant fisheries biologist with Fish and Game, who has been coordinating the project. "The trout (in Malibu) are a different strain suitable to warm water. If we could preserve them we could use them to restock the other southern streams."

The possibility of restocking really has steelhead aficionados excited. According to Cal Trout, county records indicate that the Malibu trout are undiluted descendants from the stream's original steelhead, some

10,000 years ago. Since each "family stream" of steelhead has unique genetic makeup, the Malibu's animal affinity for warm water makes it ideal breeding stock for repopulating streams down to the southern US border.

However, Bob Rawstrom, director of fisheries for the Department of Fish and Game, warns that any restocking is "a long way down the road."

Just the environmental impact reports needed to go ahead with the fish ladder's construction would take a year to complete,

DEPARTMENT OF PARKS AND RECREATION

Southern Region Headquarters
1333 Camino Del Rio South, Suite 200
San Diego, CA 92108
(619) 237-7961



February 1, 1988

Mr. Peter F. Bontadelli, Director
Department of Fish and Game
1416 9th Street
Sacramento, CA 95814

Dear Mr. Bontadelli:

Staff of the Department of Parks and Recreation, Southern Region, and Department of Fish and Game, Region 5, jointly propose to coordinate a steelhead trout stream rehabilitation/restoration project to be funded by an SB1705 appropriation. As described in the attached proposal, Malibu Creek's steelhead trout survives only as a remnant of the historical population. Several dams within the stream, particularly Rindge Dam just three miles upstream from the coastline, restrict spawning and rearing habitats to a very limited area.

Our proposal would notch (lower) the non-functional Rindge Dam and construct a fish ladder to pass adults and young steelhead over the dam. This will permit steelhead access to an additional four miles of quality spawning and juvenile stream habitat. We anticipate that these actions, plus a fishing closure for steelhead, will substantially stimulate recovery of the population.

Thank you for considering this proposal for restoring the steelhead trout population in Malibu Creek. If you have any questions regarding this proposal, please contact William Tippets, Associate Resource Ecologist of my staff at (619) 237-7252.

Sincerely,

Kirk M. Wallace, Deputy Regional Director
Southern Region

Enclosure

cc: Director's Office
R. Rayburn
M. Getty
Central Files

C. Marshall
Department of Fish and Game
245 W. Broadway, Suite 160
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CC: Worthley
Elisson
P. Moore
Marshall
Drake
KRA

A Proposal for Steelhead Population
Restoration at Malibu Creek

SUMMARY:

This project seeks to reestablish the historic steelhead trout (Salmo gairdneri gairdneri) population in Malibu Creek, Los Angeles County. Currently, a remnant population exists in the stream, but it is blocked from its primary spawning/rearing area by Rindge Dam. The dam and reservoir are not functional for water storage because the reservoir is completely filled with sediments and the dam is in disrepair. The project will lower the dam and sediments and provide a fish ladder to allow steelhead to migrate to and from the primary spawning/rearing area.

HISTORY:

Malibu Creek is one of the southernmost Pacific Coast streams to contain steelhead. Documented records are lacking, but local residents of the Malibu area report that large numbers of adult steelhead used to be caught in Malibu Creek. Since the construction of Rindge Dam in 1924, the remnant population (c. 10-30 fish) has been limited to only a three mile stretch of the lower creek which provides little spawning habitat. Currently, volunteers and Fish and Game staff are operating a weir and trap on the stream to census the adult and smolt populations below Rindge Dam. Nearly four miles of quality spawning/rearing habitat exist between Rindge Dam and the next upstream dam. Unless Rindge Dam is removed or a fish ladder is constructed to pass fish over the dam, the population will remain small and have a tenuous existence in the stream.

PROJECT

DESCRIPTION: Rindge Dam is a concrete arch facility, approximately 100 feet tall and 160 feet wide at its top. The dam was designed with a spillway, but currently it is non-functional. By about 1950, the reservoir behind the dam had filled with gravel and other sediments, which rendered it useless.

Permitting steelhead to move upstream beyond Rindge Dam will provide a substantial increase in useable spawning and rearing habitat. The only feasible method for accomplishing this is to construct a fish ladder. Currently, a fish ladder would have to negotiate about a 100 foot vertical elevation differential. However, "notching" the dam (lowering the effective dam height) would allow the

accumulated gravel/sand sediments to reach the new, lower elevation and reduce the vertical difference. This would reduce the ascent/descent faced by migrating steelhead and the length up the fish ladder. Notching of the dam could be phased over a several year period to minimize downstream sediment movement from Rindge reservoir.

As the notching is completed the fish ladder would be constructed to match the final notched elevation. This ladder would be designed similarly to other anadromous fish ladders operating in California.

PROJECT
COSTS:

Costs will vary with the amount of notching and height (and length) of the fish ladder. As a first estimate, the following project costs are identified:

1.	Environmental Review/Report Preparation	\$ 15,000
2.	Engineering Review/Specs	\$ 25,000
3.	Dam Notching	\$ 50,000 to \$ 150,000
4.	Fish Ladder (at \$10,000 per vertical foot)	\$ 500,000 to \$1,000,000
5.	Population Monitoring (3 yrs)	\$ 30,000
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		\$620,000 to 1,220,000