



Little Kern Golden Trout

Water is the lifeline for a special fish BY ANDRIA GREENE

CALIFORNIA'S LITTLE KERN golden trout (*Oncorhynchus mykiss whitei*) occupy a single watershed in the world—the Little Kern River and its tributaries, which flow through the southern Sierra Nevada mountain range, and are hugged by protected land of Sequoia National Park and Forest.

Some golden trout populations are still threatened by non-native rainbow trout introduced in the 1930s. Hybridization was the primary factor in Little Kern goldens being listed as threatened under the Endangered Species Act in 1978.

Despite this winter's abundant early-season snow, California remains a poster-child state for the consequences of climate change, and prolonged drought is a modern threat for goldens. This water-year alone, California has experienced a series of unpredictable precipitation trends, adding stressors.

Trout adapted to high-elevation are rather finicky creatures, requiring pristine, cold, and well-oxygenated water. For Little Kern goldens, life below the surface is marked by survival to the next spring. In summer 2020, I embarked on catching my fourth native trout for the California Heritage Trout Challenge, and found devastatingly low water-conditions. I learned that Little Kern goldens are survivors, and water is their lifeline.

Little Kerns occupy headwater streams, or the first streams to form in the uppermost reaches of a watershed. Droplets of water above and below the ground's surface travel downslope until thousands of droplets form a rivulet, and finally, a creek.

Little Kern golden trout live where the first creeks form. During dry summer months, these creeks lose some, if not all, water along entire stretches of channel. Creeks in the Kern River watershed are steep, and their streambeds are full of massive granite boulders, causing water to run quickly through them during wet winter months.

In the Sierra Nevada, winters are described as either good or bad based on the depth of snowpack, and subsequent spring runoff. When spring arrives, saturated soil and aquifers below ground burst with cool, clean water. As the heat of spring turns to summer, pines and firs lining the streambanks quench their thirst as the sun radiates unforgivingly in cloudless, blue skies.

By late summer, goldens scatter in what little water remains. They move into shaded rock crevasses and lay claim to their newly crowded homes. Little Kern goldens must move carefully to preserve energy, stay cool, and steer clear of looming predators above. During low-water months, they seek refuge in no more than a trickling puddle. The slightest shadow or vibration will send them darting for safety.

To land my first golden, I lowered a dry fly while hiding behind dense willows. I knew I was cornering this native trout for selfish pleasure, but I wanted to lay my eyes on their golden belly, white-tipped fins, and their dark speckles from head to tail. I wanted to inspect the rose stripe across their body and rose-dappled markings on each cheek.

All summer, my husband and I ventured into the wilderness with our backpacks and fly rods. As small-creek enthusiasts, we were expecting adventure, which in our minds included a lot of catching. But the Little Kern goldens not only put my skills, but my morality as a flyfisher, to the test. They made me question my connection with the native trout, and its connection with me. Knowing now the vulnerability of this species, should I have practiced restraint? Should I reassess why, when, and where I choose to fish for my next native species?

Soon enough, winter returned. A heavy and deep blanket of snow has now embraced the Sierra Nevada from peak to peak, inaccessible until spring. With increased sunlight, the creeks that support these special trout will behold a great flood. As the channels of each creek fill with flowing water, so will the lungs of the Little Kern golden trout. Rapids will force oxygen into the once-stagnant puddles as they hurtle over rock in explosive booms. The cold environment and increased water levels will provide comfort to these trout, allowing them to explore every nook and cranny of their re-exposed homes. Finally, the golden trout will be allowed to swim freely in prized feeding lanes, as their bodies become distorted and hidden by swift currents.

Come spring, the Little Kern golden trout will have forgotten late summers of the past. Their annual homecoming of water will restore familiar surroundings, reminiscent of a small-town jubilee. True grit is the golden trout's purest survival strategy; a trait Little Kern goldens can't live without.

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