

Drought and Trout

This year will be a tough one for trout and trout anglers.

By Michael Malekos

As California experiences a second year of drought, its harmful effects on our fisheries and wildlife continues to mount. This raises a question: How can we pursue our sport ethically, with a clear conscience, when our fisheries are stressed?

Many Californians are already feeling the impact of a low-water year. Recreationalists, farmers, ranchers, and municipalities have begun to feel the pain as we see less water in lakes, ponds, rivers, and creeks. Trout are especially vulnerable as stream flows decrease and in-stream water temperature increase, exposing them to harsh, sometimes nearly uninhabitable conditions.



We will see lower than usual stream flows and lake levels during this second year of drought in California, and some waters might even dry up.

With less water and warmer temperatures, the dissolved oxygen content in a stream can decrease significantly, adversely affecting both the fish and the insects they feed on. The conditions can also have an adverse effect on spawning, because low flows expose the eggs laid by wild trout in the gravel of streambeds. They also limit the ability of fish to migrate, whether to spawn or just to find cooler, more hospitable water. And shallow stream flows tend to concentrate fish in a few areas with deeper pockets of water, making them more vulnerable to predation, which can stress them, even if they survive. In the long run, lower water levels and accompanying higher water temperatures can also have a negative effect on a trout's growth rate.

Trout that are caught and released have a lower chance of survival under these conditions. The fish quickly exhaust their oxygen reserves while fighting a hook, and upon release, many are unable to recover. We practice catch-and-release angling so fish can live to reproduce and perhaps again fall for our attempts to catch them on another day. However, catching and releasing trout that have already been stressed by warmer water temperatures and the corresponding lack of oxygen in the water actually could kill them.

When conditions reach this level, responsible anglers stop fishing. And even before conditions reach that stage, conscientious anglers should understand the problems related to drought and search out cooler water. Here are some things you can do to help reduce stress on trout in order to fish responsibly as drought conditions continue.

Check the water temperature. Carry a stream thermometer and use it. Trout generally prefer water temperatures between 54 to 63 degrees Fahrenheit. Some can adapt to higher temperatures, if the rise in temperature occurs gradually, but a sudden increase in temperature can kill trout. During droughts, Trout Unlimited recommends anglers monitor the water temperature and fish only when it is at or below 65 degrees.

Fish tailwaters. Cooler water released from reservoirs, particularly if from the bottom of the impoundment, can help trout better handle a drought.

Target riparian zones. Riparian zones are where shrubs, bushes, and trees line the bank, providing shade that helps keep the water cooler, as well as providing habitat for terrestrial and aquatic insects. The vegetation also helps prevent erosion, allowing the water to run deep in places. Skinny water heats more rapidly, while deep pools and pockets provide cooler water temperature and offer trout better protection from predators. Trout holding in riparian zones will likely feel less stressed than in other areas of a stream that lack a riparian zone's qualities.

Fish less, or quit early. Limit your catch. We can all help fish through a tough year by limiting the number of times they're caught.

Keep the fight short. After hooking a trout, bring it to the net as quickly as possible. Then keep it in the water and practice a quick release. Avoid handling a trout. Give it time to revive and help it to swim away under its own power. Barbless hooks aid in a quick release.

Fish early in the day. Water temperatures are cooler then, and the fishing is typically better. Refrain from fishing at dusk on hot summer days. In the summer, water temperatures tend to rise quickly and require time at the end of the day to cool down. Fishing during cooler times of the day reduces added stress on trout.

Fish higher-elevation lakes and streams. Make use of this time to explore an alpine lake or creek you've been meaning to visit. You'll likely experience a great day of fishing while also reducing stress on the trout in lower elevation waters.

Fish for warmwater species. If you target carp, bass, bluegills, and crappies, drought conditions don't necessarily mean an end to fly fishing. You also may discover new fisheries close to home.

To gauge water temperature easily, the author attaches a thermometer to his wading boot.



Continued dry weather and minimal snowpack may lead to expanded and sensibly designed programs and drought initiatives introduced by the state government and administered by the California Department of Fish and Wildlife to assist in safeguarding water flows this summer, but that's more a Band-Aid than a remedy. We all need to lend a hand to preserve the resources of California's streams and lakes. Take this year as an opportunity to understand these waters better, improve your fish handling practices, and explore new fisheries.