

CATCH AND RELEASE FISHING

A few facts and opinions on its history and application...

Catch and release is a conservation practice developed to prevent overharvest of fish stocks in the face of growing human populations, mounting fishing pressure, increasingly effective fishing tackle and techniques, inadequate fishing regulations and enforcement and habitat degradation. Sports fishers have been practicing catch and release for decades, especially on highly pressured fish species. The benefits of proper catch and release have proved vital to the future of a number of important fisheries around the United States as it is a means of preserving and enhancing fish populations. It is yet another way that anglers contribute to fishing's long-standing commitment to conservation and preservation of our natural resources.

The core concept of catch and release fishing is that, by releasing fish caught via controlled sport fishing means, these fish will continue to be available for natural purposes: breeding, predation, and provision of food to other species, as well as available for others to catch again. Recognizing that a gamefish is too valuable a resource to be caught once and squandered, catch and release fishing enables potential human consumers involved in fish catching for sporting purposes to perform the activity without actually consuming the resource. Catch and release fishing thereby adds a new level of economic benefit to the existing natural benefits of the resource. This is a prototypical example of sustainable harvest and is a compelling argument favoring a non-consumptive approach to a fishery.

HISTORY

In the United Kingdom, catch and release has been performed for more than a century by fishermen in order to prevent target species from disappearing in heavily fished waters. Since the latter part of the 20th century, many salmon and trout rivers have been converted to being completely catch and release.

In the United States, catch and release was first introduced as a management tool in the state of Michigan in 1952 as an effort to reduce the cost of stocking hatchery-raised trout. Anglers fishing for fun rather than for food accepted the idea of releasing the fish while fishing in so-called "no-kill" zones. Conservationists have advocated catch and release as a way to ensure sustainability and to avoid overfishing of fish stocks.

In Australia, catch and release caught on slowly, with some pioneers practicing it in the 1960s, and the practice became more widespread in the 1970s and 1980s. Catch and release is now widely used to conserve - and indeed is critical in conserving - vulnerable fish species like the large, long lived native freshwater Murray Cod and the prized, slowly growing, heavily fished Australian bass along with the brown and rainbow trout. Heavily fished coastal species like Dusky Flathead and prized gamefish like the striped marlin are also protected by catch and release regulations.

In the Republic of Ireland, catch and release has been used as a conservation tool for the Atlantic salmon and trout fisheries since 2003. A number of fisheries now have mandatory catch and release regulations. Catch and release for coarse fish has been used by sport anglers for as long as these species have been fished for on this island. However catch and release for Atlantic salmon has required a huge turn about in how many anglers viewed the salmon angling resource. To encourage anglers to practice catch and release in all fisheries a number of Government led incentives have been implemented.

In Canada, catch and release is mandatory for some species. Canada also requires, in some cases, the use of barbless hooks to facilitate release and minimize injury.

BENEFITS OF CATCH AND RELEASE

Catch and release mortality and efficacy studies have been performed in a wide range of environments, on many species and from varying perspectives. An analytical examination of these results provides clear and valuable information as to how to optimize catch and release procedures for specific applications. A properly applied catch and release program can provide minimal environmental impact and assure very low mortality of released fish.

When fish are allowed the chance to survive and reproduce, it preserves the balance of the natural environment. This includes the creatures that feed on fish and the small creatures and plankton that require population control through consumption.

Fishing is a huge industry. The 44 million Americans who consider themselves recreational anglers spend \$41± billion each year on the sport. Considering the additional economic activity that fishing generates, like gas to and from the site or food for the trip, just to name a few, the multiplier or "ripple effect" of this expenditure is \$116± billion in total revenue per year. Considering only the economics of fishing, the practice of catch and release makes a lot of sense. When fish are caught and released back into the habitat, they'll breed and spawn more fish that can potentially be caught and released.

In catch and release fishing areas anglers typically can catch a lot of fish and, if all of these fish are released, it can have a very beneficial impact on general angler success rates in that particular body of water throughout the fishing season.

Most anglers just want to "catch" the opportunity to relax outdoors. Numerous studies have shown that catching fish to eat or catching a trophy fish is not the motivation behind most recreational fishing trips. A recent report shows that 60 percent of all anglers release most of the fish they catch; 18 percent release all the fish they catch; and only 21 percent keep everything they can legally. Those statistics are consistent with the reasons that most anglers choose to go fishing. Spending quality time in nature and with friends and relatives, away from the pressure of everyday life, consistently are the top reasons for being a recreational angler.

Fisheries are being utilized and shared by more people each year and quality habitat is dwindling in many areas, in spite of great efforts to protect and restore many lakes and rivers.

Consequently, a willingness to practice catch and release fishing helps to ensure the future of the sport and the involvement of future generations in protecting our natural resources.

It is common knowledge that the US has been in a struggling economic climate, especially in most areas of the western trout's range, where income from tourism based on natural resources comprises a large percentage of local and state economies. Now more than ever, tourism-based communities need protect and restore sources of local income. Due to an ever-increasing interest in fly fishing and the tourism dollars it generates, protecting, restoring, and propagating healthy trout populations in select rivers and lakes in North America will result in significant economic benefits to the region. Creating "catch and release only" fishing areas is one of many ways to do this.

By not killing or causing permanent harm to fish that are caught during angling increases the survival rate and allows the fish to reproduce, increasing fish populations. This action helps to reduce costs involved in re-stocking waterways. Catch and release angling is commonly used to reduce angling mortality in fish populations where angling pressure is high, fish densities are exceedingly low, or population demographics are such that even a little fishing pressure will cause overharvest. In many parts of the western United States catch and release is voluntary because of the negative angler attitudes regarding harvest of salmonids. Nevertheless, catch and release regulations or voluntary release are only effective if fish survive after being released. Mortality rates for salmonids associated with catch and release angling using artificial baits are typically low - less than 10%. When the use of single, barbless hooks is made mandatory as an additional regulation to catch and release fishing, the mortality rate typically drops even further - often to less than 5%.

BARBLESS HOOKS

A number of scientific studies have now found shallow water fish caught and released on flies and/or lures with barbless hooks have extremely high survival rates (95–97%). The effects of catch and release vary from species to species. A study of fish caught in shallow water on the Great Barrier Reef showed high survival rates (97%+) for released fish if handled correctly and particularly if caught on barbless hooks in artificial baits such as flies and lures. Fish caught on flies and lures are usually hooked cleanly in the mouth, minimizing injury and aiding release. Other studies have shown substantially lower survival rates for fish gut-hooked on bait, even if the line is cut and the fish is released without trying to remove the hook.

The use of barbless hooks is an important aspect of catch and release; single, barbless hooks reduce injury and handling time, substantially increasing the chances of a released fish's survival. Frequently, fish caught on single, barbless hooks can be released without being removed from the water, and the hook effortlessly slipped out with a single flick of the pliers or leader. One

study looking at brook trout found that barbless hooks did not result in statistically significantly lower mortality rates than barbed hooks when fish were hooked in the edge of the mouth, but did find that barbed hooks substantially elevated mortalities if fish were hooked deeper than this area. The study also found that bait fishing does cause a significantly higher mortality when utilized in a passive manner that allows the fish to swallow the bait.

IN CLOSING

Anglers can have a powerful positive - or negative - impact upon the waters they fish and the fisheries in the watersheds in which they live and work. This goes far beyond just practicing catch and release, but catch and release fishing practices are a great place for them to start. Catch and release fishing is one of the most tangible things that an individual angler can do to benefit the fisheries.

The argument for strictly catch and release practices is mainly built around conservation. In Florida, where fishing is extremely popular, about 50 percent of fish that are caught are released back into the water. This amounts to more than 70 million fish released each year. In Australia, 30 to 50 percent of the recreational catch is released each year for a total of about 47 million fish returned to live another day. If these fish and others caught worldwide were all kept, the fish population would be in even more trouble than it already is.

"We can't all just go out and just take, take, take, take, and expect the fishing to be just as good the next time we go. The more that a general conservation ethic develops, the more you see people respect the resource."

Hans Stephenson

"The finest gift you can give to any fisherman is to put a good fish back, and who knows if the fish that you caught isn't someone else's gift to you?"

Lee Wulff

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