# It's a Short! Safely Releasing Summer Flounder Unharmed

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"It's a short!" says the mate on a party boat—or your buddy while fishing the jetty a phrase heard by anglers too often these days. With summer flounder regulations changing constantly, undersized fish are being caught and released more than ever. What happens to all those released fish? Will they survive to be caught another day? Unfortunately, many will not, but there are ways to reduce catching shorts and to improve the survival of those you throw back.

Summer flounder (Paralichthys dentatus), also known as fluke, are common throughout New Jersey's estuarine and coastal waters from late spring to late fall. They can grow to more than 30 inches long and weigh over 20 pounds. One- to 3-pound fish are most common, with an 8-pound fish considered large. The New Jersey state record was landed in 1953 weighing 19 pounds, 12 ounces.

Not all fluke are keepers. In fact, most caught fish are released. During the fishing season, the short-to-keeper ratio can reach as high as 40:1 in some locations. With various hooks and bait, plus new fishing approaches and release methods, New Jersey's favorite flatfish can be released safely.

### **Hooks and Bait**

Hook technology has improved greatly in recent years with new styles and colors created annually. The five aspects that vary depending on the hook style include the eye, shank, bend, gap and point. There are dozens of hooks for targeting fluke with three common styles being the J hook, wide gap hook and circle hook.

The J hook is the most common style and can be used for almost every fish species. J hooks work well when fishing artificial lures or drifting, allowing the angler to feel the bite of the fish along with the excitement of setting the hook. The angler must pay attention, for there is an increased risk that fish will swallow the hook and become gut-hooked. Fluke have a large mouth and aggressive nature. To increase your odds of catching a legal-size fluke—and to reduce the risk of gut-hooking—New Jersey Division of Fish and Wildlife recommends that anglers use only hook sizes 5/0 to 7/0. A study conducted by Fairleigh Dickinson University shows that anglers fishing with these sized hooks catch larger fluke and minimize catching shorts.

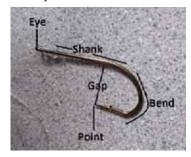
Wide gap hooks, often called a fluke hook, are a favorite among summer flounder anglers. Similar to the J hook, the bend is longer, creating a wide gap between the shank and the point. This versatile hook works well when drift fishing with bait from a boat or when casting from shore. These hooks have good results when fished with artificial bait. Like the J hook, the angler feels the bite and hooks the fish, but due to the wider gap in the hook, gut-hooking is less common.

Circle hooks are increasing in popularity with anglers targeting summer flounder. This unique hook looks like a wide gap hook but the point bends back towards the shank. Many anglers prefer to use circle hooks because once a fish is hooked, it stays hooked. When using a circle hook, the angler does not need to set the hook because the fish hooks itself. This way of fishing can be frustrating to an angler new to this approach, but once mastered, some anglers only fish circle hooks. They work well when fished with bait from a boat or from shore.

## **Properly Hooked Fluke Have High Survival Rate**

Studies from the New York and Virginia Sea Grant program sampled 461 summer flounder by hook and line. The study used sproat hooks (a type of J hook), wide gap hooks and circle hooks to analyze fish that where hooked properly and those that where gut-hooked. Mortality rates were similar among fish caught using the various hooks. Fluke that were hooked properly had an average mortality rate of only 7.5 percent. When hooked internally, the sproat hook led to a fish mortality of 80 percent,

Anatomy of a J hook



Wide gap hook (also known as fluke hook)



Circle hook



wide gap hook mortality was 60 percent and circle hook mortality was 56.5 percent. Most fluke caught in this study where caught using circle hooks.

# **Match Tackle and Bait to Avoid Fish Exhaustion**

Tackle that is heavy enough to quickly reel in your catch will benefit the fish. Exhausted fish can lead to increased mortality. One of the best parts of fishing is the fight, with the thrill of landing your quarry. Many fish are never landed. Anglers not using the correct line, terminal tackle or rod are guaranteed to lose more fish than they land. A typical summer flounder fishing outfit includes a 5- to 6-foot rod with either a conventional or spinning reel, filled with 10- to 20-pound-test line.

Fluke are aggressive, predatory fish readily consuming a variety of fish and crustaceans as well as artificial offerings. When fishing with a big bait, use a bigger hook. For example, fishing a peanut bunker or snapper bluefish with a mismatched smaller hook normally used with a clam or squid strip would worsen the odds of fluke being gut-hooked. If fishing with smaller bait like a silverside or mummichog, try using a circle hook to decrease short fish mortality. Better yet is to use only hooks sized 5/0-7/0 and matched with an appropriate bait to prevent catching smaller fish.

# **Techniques and Release Methods**

The most exciting part of summer flounder fishing is anticipating—then getting-the first hit of the day. Being in contact with the fishing rod ensures the angler will feel that hit. Technological advances in fishing line sensitivity allow an angler with a finger on the line to feel every bump, crevasse or fish hit. Yet all too often anglers leave a rod unattended while

fishing, a style known as dead-sticking. When a fish hits without an angler to set the hook, the fish may swallow it, becoming guthooked. Anglers who must step away should ask a friend to tend the rod—or simply reel up.

After feeling that hit and reeling in a short sum-mer flounder, what next? The goal is to return the fish to the water as soon as possible, but there is much more the angler can do to decrease mortality. Most fish have a surface slime layer that forms a frontline protection from bacteria. A break in that slime is like a cut on human skin. The best way to protect the fish is the "less is more" approach: the less the fish is touched, the better the chance of survival.

At the water's surface, the fish should be netted. If not being kept, a rag or gloves dipped in saltwater should be used to handle the fish, preserving the slime layer. Have ready a pair of pliers, multitool or any other de-hooking device to release the hook from the fish. An avid angler will eventually encounter a fish that swallows the hook. For gut-hooked fish, cut the line as close to the hook as possible. Mortality increases when attempting to "rip" out the hook, damaging the internal organs and gills.

A hook that remains may eventually rust away, so use plain steel hooks, not stainless. Never let fluke touch the ground or deck unless the fish is going to be dinner. When taking photos, minimize its time out of the water. Hold the fish horizontally with both (wet) hands underneath to support the fish's weight, decreasing the chance of internal damage. Avoid holding the fish by the gills, eyes or tail.

Once the excitement is over and photos quickly taken, it's time to release that fish! If the fish doesn't swim away immediately, keep the fish upright underwater using one hand around the tail and the other supporting its belly. Allow it to recover for a few minutes by gently moving it forward below the water's surface in an "S" pattern to allow oxygen-rich water to flow over the gills. The fish will swim away once sufficiently recovered.

### **Which Tackle Worked Best?**

This summer while fishing, try using a variety of hooks. For fluke, the Division of Fish and Wild-life recommends to use only hooks sized 5/0-7/0 to increase your odds of catching a legalsized fluke—and to reduce fish mortality. Take the challenge and you might be surprised that new fish-friendly products can out-fish many older products. Keep a record your fishing trips. Write down what fishing outfit was used, the terminal tackle, bait, size of fish, whether fish were kept or released, if fish swallowed the hook, fish condition when released and any other information that could increase your future success and decrease fish mortality. Take the challenge and you might be surprised that new fish-friendly products can out-fish many older products. To support the Division of Fish and Wildlife and our science-based fisheries management efforts, consider filling out a trip report through the Volun-teer Angler's Survey here: http://NJFishandWild-life.com/marinesurvey.htm. Details can be found in the page 12 article. Your input provides valuable data for sound fisheries management decisions.

To review a list of references and source materials, see the expanded online version of this article at NJFishandWildlife.com/ artflukerelease.htm.

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