



**Sport Fish Program**



# Circle Hooks Save Fish

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## Reducing Catch and Release Mortality



Photo by Terry Tessein

As part of our role in the active management of marine fisheries resources, and the desire to reduce unnecessary waste of those resources, the Massachusetts Division of Marine Fisheries is actively encouraging the use of circle hooks. We promote their use in fisheries that use baited hooks for the capture of striped bass, tunas, and other species where they can effectively reduce the mortality of released fish. This advice is based upon findings of research done by our own biologists and other researchers.

An example of a fishery where circle hooks can have a big impact is our local striped bass fishery. Massachusetts' anglers annually catch and release millions of striped bass. An estimated 8%

of those fish are lost to the population by mortality associated with that practice.

Two recent DMF research projects focused on the use of circle hooks when using bait for striped bass and tunas. In those experiments circle hooks showed a reduction in the rate of potential lethal wounding, and subsequent mortality. Estimates of lethal wounding were approximately 1.6 % for circle hooks and 27.5 % for j-hooks. Obviously, a considerable difference with circle hooks. Other researchers have had similar results.

Researchers have also estimated the effectiveness of circle hooks to hook fish that took natural baits. Results indicate that circle hooks catch slightly more fish than j-hooks. Even untended rods caught fish.

Because of the clear advantages of the use of circle hooks we strongly encourage their use by anglers. We also recommend that anglers learn more about how these hooks can benefit all fisheries resources.



J-hook    Circle Hook

## Questions and Answers about Circle Hooks

### **Q. What makes circle hooks different from J-hooks?**

**A.** On a true circle hook the point is turned inward to a much greater degree than j-hooks (see figure). Because of this feature they must catch on an exposed “edge” to hook the fish. The vast majority of fish caught with circle hooks are caught on a jaw corner. J-hook points are more exposed and are able to lodge in a greater variety of sites, like the stomach, gills or esophagus.

### **Q. Are circle hooks more difficult to use?**

**A.** While it is not as easy to get the bait onto a circle hook, by slowly rotating the hook point into the bait you should have fewer problems. When removing the hook from a fish the reverse action is needed. The hook needs to be rotated to back it out of the fish. Since most of the fish are jaw hooked the overall time spent removing hooks each day should be about the same or less than if you used j-hooks. Also, you should lose fewer hooks to swallowing of the bait or cutoffs from the occasional bluefish.

### **Q. Do I need to modify my angling technique to make circle hooks work effectively?**

**A.** Since circle hooks are designed to penetrate the fishes jaw as the fish turns

away from the angler, we found that it is best to let the fish run with the bait and then stop the line to set the hook. If you want to use the rod to set the hook at this point you can do so, but it is not necessary. An untended rod hooked fish as effectively as our skilled anglers.

### **Q. Where can I get more information on circle hooks?**

**A.** The popular press has produced several articles on their use and more are forthcoming. We also printed articles about our work with striped bass in our DMF Newsletter, Volume 19. Contact Paul Caruso (508) 990-2860 x 107 or Brad Chase (617) 727-1306 x 111 for additional information.

### **Q. Where can I purchase circle hooks?**

**A.** Most tackle outlets along the coast now offer a variety of sizes and styles of circle hooks. We recommend you purchase them with a bend size that is comparable to the j-hook you now use, since manufacturers size circle hooks differently than j-hooks and different manufactures use different measuring standards. We also recommend the purchase of circle hooks without an offset-point since, like j-hooks, they catch fish in a wider variety of anatomical sites.