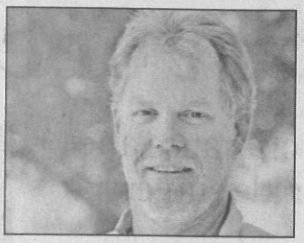
# Know about thermoclines in summer

## 'ro anglers skilled at 'eliminating water'



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I've long held with the belief that 10 percent of the fishermen catch 90 percent of the fish.

The reason that saying rings true is that those 10 percenters understand that 90 percent of the fish are found in only 10 percent of the water. Professional tournament anglers have a process they go through while pre-fishing for a tournament that they refer to as "eliminating water."

While that process sounds more disgusting than it really is, "eliminating water" means verifying that fish either are or are not holding to a given pattern in the 10 percent of the water that seasoned anglers would expect them to be in.

During the summer months when fishing can become extremely difficult, much of the 10 percent of the water that anglers are looking to find fish in is related to a thermocline.

A thermocline is a layer of water more often found in a large body of water, where the temperature gradient is greater than that of the warmer layer above and the colder layer below. To understand the concept, a quick physical science lesson is in order.

A typical reservoir may have uniform temperatures throughout the lake, from top to bottom, for only a short time in the spring and again in the fall. In the summer, most lakes with sufficient depth (usually 30 to 40 feet) are stratified into distinct, non-mixing layers of different temperatures. The top, warmer layer is referred to as the epilimnion; the colder bottom layer is known as the hypolimnion. These two layers are separated by the metalimnion. The metalimnion, better known as the thermocline, is a zone of rapidly changing temperature.

You'll understand the concept better if you recall a time while swimming that you dove into a lake and found substantially colder water several feet below the surface. Fish thrive in this cooler layer because it has the best balance of dissolved oxygen. The colder water below, the hypolimnion layer, is actually devoid of oxygen. Because little sunlight reaches the hypolimnion, photosynthetic oxygen production is negligible and decomposition of dead plant and animal matter on the lake floor leads to declining oxygen levels as the summer progresses.

At this time of year, any lake that can and will develop a thermocline has done so. This means that 90 percent of the fish will most certainly be holding at specific depths in stratified reservoirs to take advantage of the cooler water that provides the highest levels of dissolved oxygen.



**Summer anglers who understand how fish relate to a rapidly changing temperature zone — the thermocline — have better luck.** PHILLIP GENTRY

To understand the seasonal movements of fish in our local reservoirs – striped bass, largemouth and spotted bass, and even larger catfish species -- you have to monitor them. As the temperatures and water inflows change, so do fish movements.

The best way to determine the level of the thermocline is by adjusting the sensitivity on most of today's modern sonar units. The cooler, denser water will rebound the signal and chart a slight line across the graph, marking the depth level. If fish are present in that area of the thermocline, it will be the level where most of them are residing.

Another way to judge the thermocline is by the life of live bait. If you raise a minnow too high, the warmer water will quickly kill the bait. If you drop the bait below the thermocline, the lack of oxygen will kill the bait.

The next step to finding fish is locating where the thermocline layer meets suitable fish cover.

Anglers often confuse the terms "structure" and "cover."

Simply stated, structure is any terrain feature that crappie, bass, stripers, or other fish will find favorable given the time of year.

Cover is a physical object -- a stump, tree, rock pile, bridge piling or boat dock -- that usually rises vertically in the water column to either break current or provide a hiding place.

Many professional anglers and guides have made a living fishing break lines – an underwater ridge where the bottom drops away to deeper water. As a method of locating fish at a particular depth, get on a specific break line and follow it. Since we already know that fish are more inclined to suspend at the level of the thermocline, the key is to put your baits right in the top of the thermocline and then follow the break line until you come across the fish holding on or above some kind of structure.

# fishing

» The S.C. Department of Natural Resources, in cooperation with the Enoree District of the U.S. Forest Service, will host a youth dove hunt in Union County on Sept. 6.

Only youths 17 or younger will be allowed to shoot, and youths must be accompanied by an adult 21 or older.

For more information, contact the Union office of the SCDNR at 864-427-5140 or the Enoree Forest Service Office at 864-427-9858.

■ Phillip Gentry is the host of "Upstate Outdoors" at noon Saturdays on WORD 106.3 FM. This week, "Upstate Outdoors" will feature the latest trends in freshwater fishing and finding a deer hunting club before the start of the season. Contact Gentry at pgentry6@bellsouth.net.