

Striped Bass Summertime Hangouts

Smith Mountain Lake is a great place to be during the “dog days” of Summer. The Smith Mountain Lake area experiences warm and humid days but the lake provides some relief from the sweltering heat. Residents and visitors look for ways to cool off during the summer by taking boat rides, enjoying water sports and swimming in the refreshing water of SML. There isn’t anything much better than jumping off your dock or boat on a hot day!

So, what do the Striped Bass (*Morone saxatilis*) do when the water temps at SML rise during the summer warm-up? The surface temperature at SML during the summer months is usually in the mid-80s. Striped Bass have a preferred temperature range from 55F to 68F. Where can the Striped Bass find their comfort zone? Deep water is the easy answer, but let’s read on to learn more about how Dissolved Oxygen factors into finding suitable summertime Striped Bass habitat.

Deeper freshwater lakes like SML have 3 layers during the summer months. The epilimnion is the upper water that is usually warm and well oxygenated. The metalimnion is the middle layer of water where there is a rapid change in temperature and oxygen concentrations. The lower layer is the hypolimnion where the temperature is cold and oxygen level could be high or low. For about 2 weeks in the spring and again in the fall, SML is entirely mixed from top to bottom with only a few degrees separating the surface temperature from the temperature near the bottom. This phenomenon is known as “lake turnover.”

During the summer stratification (3 layers) a thermocline develops. The thermocline is a steep temperature gradient in a body of water such as a lake, marked by a layer above and below which the water is at different temperatures. A thermocline prevents dissolved oxygen (DO) produced by plant photosynthesis in the warm waters of the well-lit epilimnion from reaching the cold dark hypolimnion waters. The hypolimnion only has the dissolved oxygen it acquired during the short two-week spring turnover. This finite oxygen supply is gradually used by the bacteria in the water to decompose the dead plant and animal organic matter that falls into the hypolimnion from the epilimnion, where it is produced. With no opportunity for re-supply, the dissolved oxygen in hypolimnion water is gradually exhausted (Michigan State University, 2008).

SML is unique because of the constant pumping and pump back by AEP to generate power. The lower part of the lake doesn’t experience a dramatic thermocline like the upper Roanoke River arm, the upper Blackwater River arm and most major creek arms. So, what does this all mean? Can’t you just tell me where to go catch Striped Bass in the summer? It isn’t as easy as telling you to just find cool, deep water.

We talked about dissolved oxygen (DO) earlier, let’s see how it relates to water temperature to find the ideal summertime habitat for Striped Bass. The traditional view of landlocked Striped Bass habitat was that they need DO levels above 2-3mg/L and temperatures below 77F to thrive. However, Striped Bass are found in reservoirs where hypolimnetic hypoxia (absence of oxygen at the hypolimnion level) forces them into warmer temperatures for much of the summer, and contrary to expectations, these populations do not consistently experience poor growth or mortality. As summer stratification

develops, Striped Bass select preferred temperature ranges of 68F – 73F as long as the DO was at least 2mg/L. Once hypoxia forces Striped Bass into warmer water, the fish concentrate at the top of the oxycline (defined as the depth just above the largest decline in DO occurring over a 3ft change in depth), which could be 5 degrees warmer but had greater DO levels (4-8mg/L) than the coolest water, with DO of 2mg/L (American Fisheries Society, 2010).

If you are looking for Striped Bass in the summer, they won't be in warm water (epilimnion – top layer) for long. They cannot tolerate water temperatures above 82F for long periods of time. Striped Bass probably won't be extremely deep in the summer because the depletion of DO in the hypolimnion (bottom layer). Your search needs to be focused on the most well oxygenated, cool water that SML can offer. Due to fluctuating water levels, summer rainstorms, boat traffic, wind and available forage that "sweet-spot" habitat can move day-to-day. In our last article we explored the 4 types of forage available to the Striped Bass. Gizzard shad and threadfin shad prefer warmer, shallow water. The alewife herring and the blueback herring prefer cooler, deeper water. If you can find forage near the cool oxygenated water, the Striped Bass shouldn't be too far away. A network of good fishing buddies and good electronics are essential for summer Striped Bass fishing.

The Smith Mountain Striper Club (SMSC) is a local non-profit club that strives to educate, promote and protect the Striped Bass (*Morone saxatilis*) that inhabit the waters of Smith Mountain Lake. The SMSC holds regular meetings with guest speakers, offers on-water fishing activities and engages the local community in out-reach efforts. The SMSC website is www.smithmountainstriperclub.com and has great information for the novice and expert alike.