



Claytor Lake: More than a Wide Spot in the New River

**John R. Copeland, Fisheries Biologist, Blacksburg Office
April 1, 2021**

Imagine yourself on a waterbody that is more like a wide river than a lake. When you do, you have a picture of Claytor Lake. Claytor Lake, a 4,363 acre reservoir, stretches northeastward from Allisonia across the Pulaski County countryside for about 21 miles to its dam near Radford. From Claytor Lake State Park, visitors view a sparkling lake, bustling with boating activity, with the top of Claytor Lake dam in the distance. Visitors who want to explore can ride 15 miles upstream to Allisonia, where the New River enters the lake. Claytor Lake is shallow in areas upstream from Lighthouse Bridge, the only bridge that crosses the main lake (Pulaski County Route 672), so be cautious if you roam upstream from the bridge. Near the midpoint of Claytor Lake, the only major tributary, Peak Creek, enters the lake. If you are not familiar with Claytor Lake's key locations, refer to the lake overview map on the last page of this report.



View of Claytor Lake Dam from Claytor Lake State Park's boat ramp.

American Electric Power Company (now known as Appalachian Power Company) constructed Claytor Dam in 1939 to produce hydroelectric power from the incessant flow of the New River, installing 4 hydroelectric turbines to produce electricity. Because Claytor Lake is a main stem impoundment with a large watershed upstream, water passes through more quickly than in most large Virginia reservoirs. As a result, Claytor Lake has different temperature and oxygen

levels than other nearby reservoirs like Smith Mountain Lake. Claytor Lake's temperature and oxygen levels are big factors for fishes like Striped Bass and Hybrid Striped Bass that swim in its waters.

When Claytor Lake was first constructed, New River fish were trapped in the reservoir. Smallmouth Bass, Largemouth Bass, and Spotted Bass, Bluegill, Black Crappie, Channel Catfish, Flathead Catfish, Yellow Perch, and Common Carp flourished in this new environment. Most of these fish prefer shoreline areas of the lake. Due to their hydropower operating license agreement with the Federal Energy Regulatory Commission, Appalachian Power Company maintains stable water levels in Claytor Lake between April 1 and November 30 to protect spawning habitat for shallow water spawning fishes like sunfish, crappie, and bass, so these fish reproduce and survive well from year to year.

During the early years of Virginia Department of Wildlife Resources (VDWR) management efforts at Claytor Lake, fish were introduced to take advantage of the large open water areas in this lake. VDWR fisheries biologists introduced Alewife as a prey fish. Then, they stocked Walleye annually to prey on the alewife. In 1996, Walleye stockings were discontinued after a genetic study of Walleye in the lake and the upstream New River found that a unique strain of Walleye exists in the New River. Prior to this study, Walleye stocked in Claytor Lake were from other areas of North America. Biologists managing the fishery feared that these other genetic strains of Walleye would contaminate the unique New River Walleye strain that produced state record Walleye through the early 1990's. Since 2004, VDWR biologists have produced New River strain Walleye in their fish hatcheries, so Claytor Lake is stocked with this genetic strain of Walleye. Starting in the late 1960's, Striped Bass were stocked as an additional predatory fish in the open waters of Claytor Lake. Annual stocking of stripers continues today. In 1993, fisheries biologists added Striped Bass Hybrids (a cross between Striped Bass and White Bass) to provide another open water predatory fish for anglers.

Claytor Lake offers something for every angler. Whether you enjoy working shoreline trees for bass and bluegill or trolling deepwater areas for Striped Bass, Hybrid Striped Bass, and Walleye, Claytor Lake is the place for you. Read on to learn about Claytor Lake and how to catch the fish that swim there.

Black Bass

Largemouth Bass, Smallmouth Bass, and Spotted Bass are the "bread and butter" fishes of Claytor Lake. In the VDWR 2017 angler survey, nearly 67 percent of Claytor Lake anglers fished for these species. With its diverse bass species, Claytor Lake bass populations have changed over time, with an increase in Spotted Bass numbers, while Largemouth Bass numbers remained stable and Smallmouth Bass numbers declined.

In response to these population changes, bass size and creel limits were changed in 2019 and again in 2021. Due to the high numbers of Spotted Bass in Claytor Lake, there are no size or daily creel limits in place for them. To ensure continued spawning populations of Smallmouth Bass in Claytor Lake, they are regulated by a 14 inch minimum size limit. Since Largemouth Bass are mostly caught and released, there is no minimum size limit for them. Anglers are permitted to keep up to 5 Largemouth Bass and Smallmouth Bass per day combined. Anglers are encouraged

to practice catch-and-release of Smallmouth Bass and Largemouth Bass.

New state record Spotted Bass have been caught twice since 2017 at Claytor Lake. Genetic testing revealed they were both Alabama Bass, alerting VDWR fisheries biologists that this bass species was introduced to Claytor Lake. Since the VDWR did not introduce Alabama Bass, the introductions must be from anglers convinced they are helping Claytor Lake's bass populations. In fact, in locations where Alabama Bass introductions have occurred, Smallmouth Bass and Largemouth Bass have declined, resulting in reservoirs dominated by Alabama Bass <https://www.bassmaster.com/conservation-news/alabama-bass-invasion>. In order to get a genetic picture of Claytor Lake's Spotted Bass populations, VDWR fisheries biologists collected genetic samples in 2018 and 2019 from 154 bass identified as Spotted Bass during electrofishing in 3 locations (Clapboard Hollow, Peak Creek, and near Claytor Lake State Park). The genetic results show that Alabama Bass have hybridized with Spotted Bass and Smallmouth Bass and the lake has Spotted Bass/Smallmouth Bass hybrids. However, with 67.5% of collections typing out as Spotted Bass and 25.3% as Spotted Bass/Alabama Bass hybrids, it appears the introduction happened recently, with the primary impact on Spotted Bass. Alabama Bass are not hybridizing readily with Smallmouth Bass (1.3% of collections were Alabama Bass/Smallmouth Bass hybrids) and there are Spotted Bass/Smallmouth Bass hybrids in Claytor Lake (1.9% of collections).

Claytor Lake's Largemouth Bass populations have been stable over the past 10 years. During spring 2020 electrofishing, 67% of the Largemouth Bass collected over 8 inches long were over 12 inches, and 37% were over 15 inches long, so anglers should catch plenty of Largemouth Bass between 12 and 20 inches in 2021. Anglers can find Largemouth Bass in coves throughout the lake, but the best areas to fish are large coves in the lower lake, like Spooky Hollow and Texas Hollow, and the Peak Creek arm of the lake. The Claytor Lake record for Largemouth Bass was a 14-pound, 6-ounce giant caught in June 1991. Claytor Lake's steep and rocky shorelines create good habitat for Smallmouth Bass. Good areas for smallmouth bass are the shoreline across from the mouth of Dublin Hollow, the shoreline between Spooky Hollow and Texas Hollow, and in Dublin Hollow.



Mr. Clifton Joel Hamilton displays the 4 pound, 12 ounce state record Spotted Bass he caught in Claytor Lake on January 1, 2020.

Spotted Bass in Claytor Lake do not grow as large as Largemouth Bass and Smallmouth Bass, typically reaching up to 2 pounds in size. Spotted Bass numbers are high in Claytor Lake, so anglers will catch them when bass fishing. Most of the Spotted Bass in 2020 electrofishing collections were 12 to 16 inches long. In recent years, Claytor Lake anglers have caught larger Spotted Bass that were genetically identified as Alabama Bass, like the new state record above caught in January 2020.

Catfish

Any review of the Claytor Lake fishery is lacking without mentioning the growth in catfish angling. Channel Catfish and Flathead Catfish are native catfishes in the New River, so Claytor Lake contains plenty of naturally reproducing catfish for anglers to target. In fact, over a 10 year period from 2007 to 2017, catfish fishing effort at Claytor Lake increased by over 200%, making it the second biggest lake fishery at 13% of the total fishing effort. Based on the VDWR 2017 angler survey, anglers primarily target catfish from April to June, with a second bump in fishing effort in September and October. Catch rates are good, with an average of 1.2 caught per hour, with catch rates highest in May (1.8 per hour) and October (2.4 per hour). Channel Catfish were the fourth most harvested fish in the 2017 Claytor Lake angler survey, with a total estimated catch of 5,801 fish and estimated annual harvest of 2,692 fish. Flathead Catfish up to 30 pounds and Channel Catfish up to 15 pounds are available.

Striped Bass and Hybrid Striped Bass

With the growth of the catfish fishery at Claytor Lake in recent years, the Striped Bass and Hybrid Striped Bass fishery has dropped to the third largest fishery at Claytor Lake, with 6% of anglers fishing for these 2 species. VDWR fisheries biologists maintain these populations in Claytor Lake through annual stocking.

Dry years are difficult for stripers in Claytor Lake, since their preferred habitat (suitable temperatures and oxygen levels) disappears in most dry years due to the lack of flow from the New River upstream. Stripers can be caught year-round, although most anglers have their greatest success from late September through May. Water temperatures below 70 degrees produce the best striper fishing. Striper diet studies at Claytor Lake showed that stripers rely mostly on Alewife and Gizzard Shad. Therefore, it is no surprise that Claytor Lake anglers experience the best success using these species as bait. Many stripers are taken with topwater baits (Redfins, Rapalas, etc.) and bucktails in the spring and fall. For best topwater action, fish points and flats adjacent to deep water. Trolling bucktails in 20 to 60 feet of water can produce good catches.

During the summer and early fall months of average and wet years Striped Bass “hole up” in the middle and lower lake areas close to the lake’s thermocline (50 to 70 feet deep), where they find suitable temperature and oxygen levels. In dry years, stripers are unable to find suitable habitat anywhere in the lake during the summer months, so they roam the lake in search of suitable habitat. During summer, stripers are typically located from the mouth of Clapboard Hollow downstream to the dam. When the lake begins to cool in October, stripers begin chasing shad and alewife schools around the lake and are more difficult to locate. If you see stripers chasing shad at the surface, you can catch them on top water lures. In winter months, look for stripers in the middle and upper lake areas, from the mouth of Peak Creek up to Lighthouse Bridge. Find the bait schools and you are likely to find the stripers nearby. In March and April, and during times of high inflows,

stripers run to the headwaters of the lake at Allisonia.

Claytor Lake is the top Commonwealth destination for Hybrid Striped Bass. Since they can tolerate higher water temperatures, hybrids often chase schools of shad at the lake's surface at night in the summer months. Hybrid Striped Bass diets are very similar to striper diets, so they can be caught using the same techniques. In summer, hybrids are usually found either between Lighthouse Bridge and Peak Creek or between Felt's Hollow and Hidden Hollow. In the fall, winter, and spring months, hybrids can be found throughout the lake.

White Bass and White Perch

White bass are no longer common in Claytor Lake, but they are occasionally caught. White perch were introduced to Claytor Lake from an unknown source in about 2006. These close cousins of white bass may be caught by anglers seeking white bass.

Striper, Hybrid, White Bass and White Perch Regulations and Identification

New size and creel limits were implemented in 2019 to provide further protection for Striped Bass and Hybrid Striped Bass during the peak summer months when catch and release mortality is a problem. From July 1 to September 15, Striped Bass and Hybrid Striped Bass have no minimum size limit with a combined creel limit of 4 per day. From September 16 to June 30, Striped Bass and Hybrid Striped Bass are regulated by a 20 inch minimum size limit with a 2 per day creel limit. White bass are regulated by a creel limit of five per day, with no size limit. White perch of any size may be taken in unlimited numbers. Anglers should study the differences between these fish using identification information at <https://www.dwr.virginia.gov/wildlife/fish/> or in our Department publication "The Angler's Guide to Virginia Freshwater Sportfish".

Walleye

With the growth of the Walleye population over the last 10 years, anglers are catching them more frequently at Claytor Lake. In fact, the Walleye fishery is now the fourth largest fishery at the lake, with 5% of anglers targeting them and an estimated annual catch of 2,127 Walleye. Some of these Walleye are reaching trophy award certificate sizes (more than 5 pounds or over 25 inches). The improved Walleye population is a result of VDWR fisheries biologists restoring New River strain Walleye to the river upstream from Claytor Lake. Some of these Walleye live in Claytor Lake for much of the year, then run up the New River in February, March, and April to spawn. During fall, winter, and summer months, look for schools of these fish in the same areas where stripers hang out. During the spring spawning run, look for Walleye where the New River enters the lake near Allisonia. From Claytor Dam upstream to Buck Dam in Carroll County no Walleye 19 to 28 inches may be kept and anglers are limited to 2 Walleye per day year round. This slot limit is designed to protect large female spawning Walleye in the New River, while allowing some harvest of the more abundant male Walleye.

Other Popular Species

Claytor Lake anglers catch Yellow Perch in the one-pound range. Anglers targeting Yellow Perch are not numerous (less than 1% of the total fishing effort in 2017), but they catch large numbers (2017 estimated catch of 10,032 and harvest of 419). The Black Crappie population is not large compared to other lakes, but they average over 1/2 pound in size. Bluegill are

numerous throughout the lake, providing action when other species are not biting. With catches of 20 to 30 pound Common Carp possible, anglers from as far away as England come to fish for them at Claytor Lake.

Lake Access

Claytor Lake State Park, located on the north side of the lake within a few miles of the dam, provides 497 acres of park with camping, cabins, picnic areas, and a swimming beach, as well as a marina and boat ramp. For more information on the park, call 540-643-2500. To reach Claytor Lake State Park, take the Claytor Lake State Park exit (Exit 101) off Interstate 81 and follow the signs to the park.

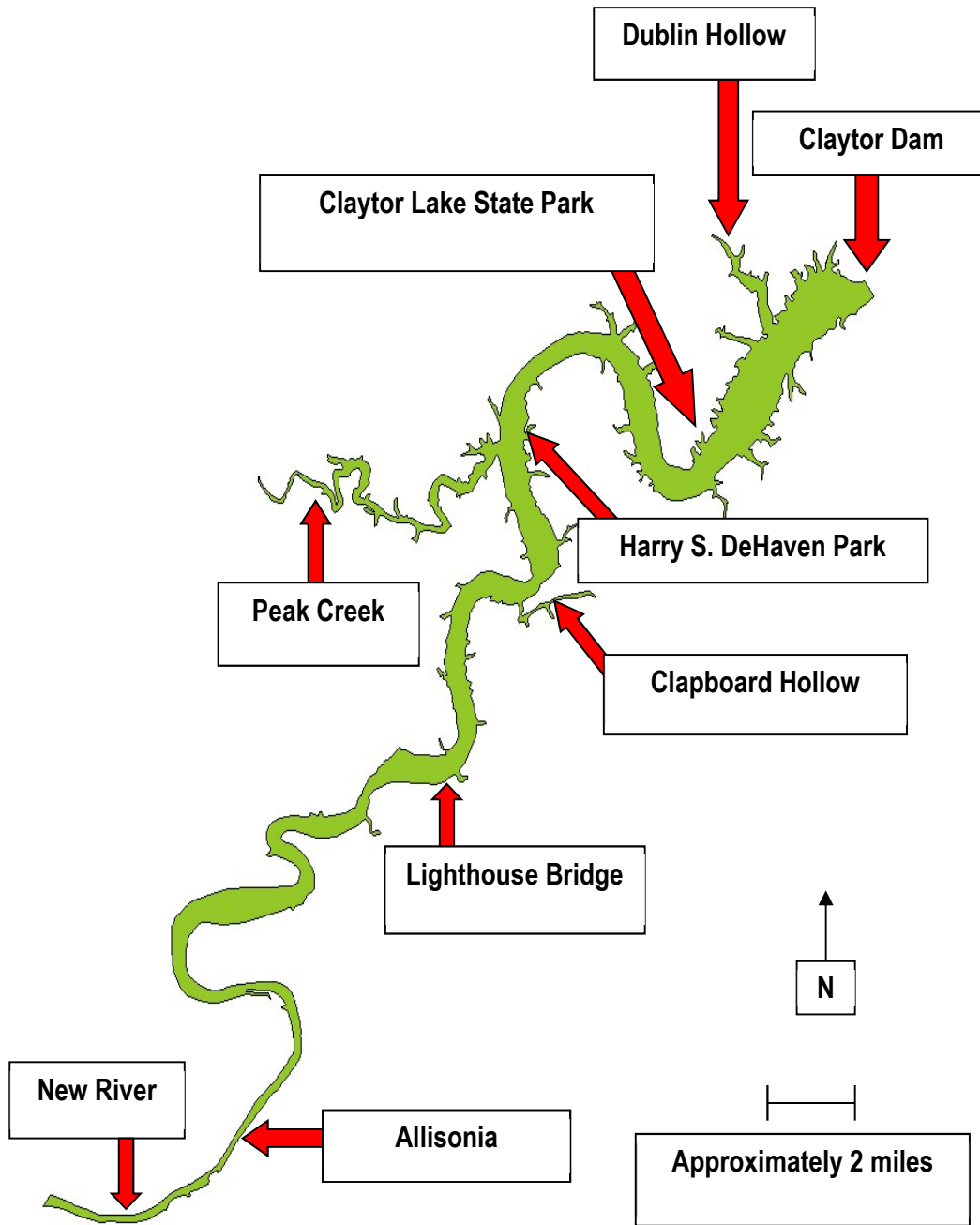
Boat access to the lake is available for a small fee at ramps at Claytor Lake State Park, Lighthouse Bridge, and Conrad Brothers and Rockhouse Marinas on the Peak Creek arm of the lake. The VDWR maintains no-fee ramps at Allisonia (in the upper lake area) and near the entrance to the state park (Dublin Ramp).

Harry's Point boat ramp, a no-fee ramp located in the mid-lake area in Pulaski County's Harry S. DeHaven Park, has a double ramp and courtesy piers. This park also has a handicapped-accessible fishing pier, where many of the lake's species can be caught throughout the year. During the fall and winter months, anglers are likely to catch Striped Bass and Hybrid Striped Bass swimming near the pier. The easiest way to get to Harry DeHaven Park from Interstate 81 is to take the Route 605 exit (Exit 105) and follow the brown trailblazer signs to Harry DeHaven Park. From the Interstate 81 exit ramp, take Route 605 (Little River Dam Road). Follow Route 605 until you reach Route 663 (Owens Road), go right on 663, then look for signs marking the park when you get near the lake.

Maps and Additional Information

A commercially produced topographic map sold by Friends of Claytor Lake is available from local marinas and other retailers in the lake area. Claytor Lake is long and steep-sided, so use a depth finder to look for underwater humps and points. Clues to locations of these key features can be found by looking at the surrounding land at any point on the lake. If you are next to a steep ridge, it is unlikely that you are close to any shallow water habitat. Look for shallow water habitat on the opposite shoreline from steep ridges. The old New River channel typically follows close to the steep areas along the lake's shoreline.

If you have questions, email VDGIF fisheries biologist John Copeland at John.Copeland@dwr.virginia.gov.



Map of Claytor Lake showing key locations mentioned in this report.