Photo by Bill Lindner

Ol' Marble Eyes

By David I. Wellman, Jr.

A mouth full of sharp teeth, large iridescent eyes, and great table fare may be how many Mountain State anglers would describe Ol' Marble-Eyes, more commonly known as the walleye. Other names associated with walleye are walleyed pike, jack salmon, or yellow pickerel. However, walleyes are not related to pike, salmon or pickerel.

The walleye is the largest member of the perch family, which includes the yellow perch, sauger, and several species of darters. Walleyes are yellow-green along the top and sides, fading to white on the belly. Closely resembling the slightly smaller sauger, walleyes can be distinguished by a large black blotch on the base of the spiny dorsal fin and the large white spot on the bottom tip of the tail.

West Virginia walleyes begin spawning in early March and may continue through early April when water temperatures are in the range of 40-48 degrees. Spawning occurs over sandy, rocky and gravel bottoms in two to four feet of water. Once the adhesive eggs are deposited, it typically takes two to three weeks for hatching to occur. Unfortunately for the eggs, walleye spawning often corresponds with extreme weather and water conditions. High water flows associated with cold spring rain or snowmelt can cause water temperatures to drastically drop within a day, which reduces egg survival because of temperature shock. Water level fluctuations in our flood-control reservoirs can be extreme, increasing or decreasing 5 to 10 feet in a day. Muddy water caused by sudden increases in flows can smother incubating eggs, while decreasing lake elevations can leave the eggs above the water level and kill them. It seems that the odds are stacked against walleyes from the very beginning.

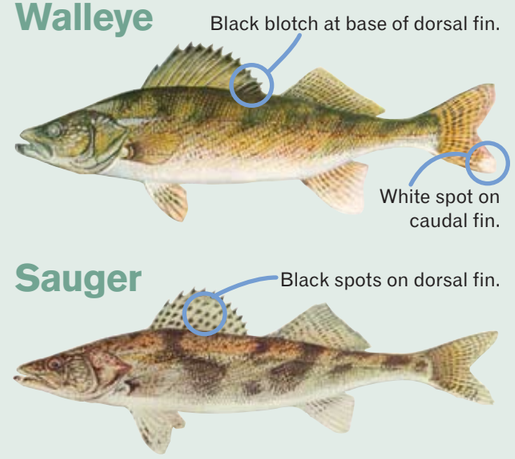
Immediately upon hatching, walleye fry are unable to swim until their fins develop, which usually occurs within five days. During this time they are moved about by wind and current while surviving on their yolk sac. After five days, they start feeding on microscopic organisms called zooplankton. If adequate supplies of zooplankton are not available, walleye fry will starve. In addition, walleye eggs and fry are often eaten by other fish species, as well as by adult walleyes. You can easily see why walleye populations may be excellent for some years, but not as good in others.

Adult walleyes are very efficient predators, feeding on whatever fish species are most abundant.

Jay Carper

Jay Carper of Clay County caught this beautiful 28-inch walleye from Elk River below Sutton Lake. This area has historically provided trophy-sized walleyes for Mountain State anglers.

Sauger and walleye appear similar, but can be easily separated by a few basic characteristics.



In West Virginia reservoirs, minnows and young-of-the-year bluegills are common food items, while gizzard shad and minnows are abundant food sources in rivers. Growth depends on several factors such as food availability and quality, walleye population density, competition with other fish species, and environmental conditions. In West Virginia, walleyes reach an average of 12 inches in their first full year of growth, and may take five years to reach 18 or more inches, again depending on several factors. Walleyes have reached fantastic sizes in the Mountain State. The length record is 35 inches and was caught in 1976 from the Kanawha River at Kanawha Falls. The most recent weight record was caught from the Elk River in 2004. It was a behemoth walleye weighing in at nearly 19 pounds, one of the largest ever caught in the United States!

Walleyes were once abundant in large rivers such as the Kanawha, Monongahela, Ohio and many of their tributaries. But by the 1950s, pollution from mining, timbering and other industrial activities, greatly reduced or eliminated them. Passage of the federal

Clean Water Act in the early 1970s and other environmental regulations greatly improved water quality to the point that not only walleyes, but also many other fish species began to thrive once again.

Reservoirs constructed by the U.S. Army Corps of Engineers throughout West Virginia since the 1960s created new habitats suitable for walleyes. Those who fish Summersville Lake and Tygart Lake know these reservoirs have two of the Mountain State's best self-sustaining walleye populations. Both reservoirs have ample spawning habitat in the form of rocky bottoms and steep-sided shorelines. However, most of our other reservoirs have limited reproduction and supplemental stocking is required.

Frank Jernejcic/WV DNR Photo

Walleyes are attracted to currents just downstream of lock and dams on West Virginia's major rivers. Many lock and dams, such as Hannibal on the Ohio River provide excellent year-round access for anglers.

Opportunities for catching walleyes, prized by anglers, are continuing to improve across West Virginia. In 2001, Apple Grove Hatchery was constructed along the banks of the Ohio River in Mason County. This facility provided the DNR with the ability to raise two- to three-inch fingerling walleyes, which are stocked in several reservoirs and a few rivers. Previously, DNR's ability was limited to stocking only walleye fry.

Mark Scott/WV DNR Photo

DNR fisheries biologist Jeff Hansbarger with a nice walleye collected during electrofishing surveys on the New River. Fingerling walleyes have been stocked in New River downstream of Sandstone Falls since 2004.

Fingerlings, though more expensive to raise, have a much higher survival rate because of their larger size than fry. In 2009 alone, DNR stocked about 172,000 fingerling walleyes in seven reservoirs, three small impoundments and four rivers.

Walleyes are very sensitive to light and their location within a given body of water is dependent upon weather conditions such as sunny or cloudy skies, wind, water turbidity and time of day. On cloudy and windy days when light is reduced, walleyes can often be found in shallow water; but on calm, bright days, walleyes will likely be in deeper water. Walleyes exhibit a crepuscular feeding behavior, which means they feed actively at dusk and dawn, often moving into shallow water. This 'twilight bite' is a good time to roam the shorelines and fish for walleyes. Also, the currents immediately below the lock and dam tailwaters on our major rivers such as the Ohio, Kanawha and Monongahela rivers attract walleyes, and fishing can be excellent in these areas. Walleye angling is a challenge, but ample opportunities exist to reward the knowledgeable and persistent Mountain State angler.

David Wellman, Jr. is the assistant district fisheries biologist stationed in Farmington.