



# Restoring West Virginia's Riverine Fishes

By Chris O'Bara

West Virginia is blessed with an abundance of rivers and streams providing a great diversity of habitats in which aquatic life can prosper. Unfortunately, over the last century these rivers and streams were often abused. With the increased awareness of our environment, and more importantly, a willingness of industry, government and the general public to improve these water bodies, the conditions are now in place to restore several fish species to many of these previously degraded rivers.

Since the late 1990s the West Virginia Division of Natural Resources has embarked on endeavors to restore several fish species to rivers and streams throughout the state. These efforts have been recently accelerated because of increased knowledge of our state's fish populations, new techniques in spawning and rearing fish, increased capacity of the state's warmwater hatchery system, and a partnership among several neighboring states.

Why should we care about restoring these once abundant species? This can be summed up in a few easily understood concepts. When asked, "Why climb Mt. Everest?" the first truly great mountaineer George Mallory clearly answered, "Because it is there!" We too can exclaim, "Because they were here!" The fish species DNR Wildlife Resources Section personnel are actively restoring were once abundant in many of our rivers, but were lost because of degraded conditions.

The species being restored also represent a real or potential benefit to all of us in providing unique angling opportunities. This also translates into new dollars to local and regional economies. A recent survey of wildlife enthusiasts reported that West Virginia anglers provided over \$450 million to the state's economy, as well as more than 4,500 jobs, mostly to rural regions of the state. New angling opportunities will only expand these economic inputs, especially in these rural areas. Consequently, it is easy to understand



DNR personnel prepare to spawn shovelnose sturgeon at Palestine Hatchery. The resulting young are stocked in larger rivers like the Kanawha at Kanawha Falls (opposite page).

why these species should be restored.

Now that I've explained the when and why of fish restoration in West Virginia, let's look at the "what" aspect of the question. DNR biologists are actively involved with restoring the majestic paddlefish, West Virginia's largest fish species, the ancient shovelnose sturgeon, the big blue catfish and the native river walleye. In addition, efforts are underway to enhance muskellunge, smallmouth bass and sauger populations in rivers where these prized game species once thrived.

## Restoration

Paddlefish, shovelnose sturgeon and blue catfish are truly the "great river" species of West Virginia and once inhabited the Ohio and Kanawha rivers, as well as many of the larger tributaries such as the Little Kanawha River and lower Middle Island Creek. The paddlefish restoration has been ongoing for several years through a multi-state cooperative effort. Paddlefish are now frequently encountered by fisheries biologists and are reported annually by anglers. "Hot spots" for paddlefish are the Winfield Pool of the Kanawha River, and the Greenup and Belleville pools of the Ohio River. Currently, this protected species must be immediately returned to the water if caught by anglers, but if restoration efforts continue to be successful, someday anglers will be allowed to actively seek these true giants of our great rivers.

The shovelnose sturgeon restoration program was initiated in 2005. Since then, DNR personnel have been working with biologists from the Indiana Division of Fish and Wildlife in collecting large mature shovelnose sturgeon from the Wabash River. Once collected these fish are transported to Palestine State Fish Hatchery near Elizabeth, West Virginia and spawned. The resulting fry are reared at both the Palestine and the Apple Grove State Fish hatcheries, and ultimately released into the Kanawha River just downstream of Kanawha Falls and the Little Kanawha River. In 2007, more than 20,000 shovelnose sturgeon were stocked into these rivers. In addition, surviving adults are released into both rivers. Since the initiation of the program, a few surprised Kanawha River anglers have caught these ancient fish. As with paddlefish, shovelnose sturgeon are protected species and must be released immediately. But as early success of this program suggests, anglers will be able to catch these ancient fish once again in West Virginia waters.

The final species involved with these large river restoration efforts is the blue catfish, the largest catfish species known from North America. DNR restoration efforts are concentrated in the Winfield Pool of the Kanawha River, and the R.C. Byrd, Racine and Belleville pools of the Ohio River. Since 2004, Wildlife Resources Section hatchery staff have acquired fry from the Kentucky Department of Fish and Wildlife



Resources and reared these riverine fish at both the Apple Grove and Palestine State fish hatcheries. In addition, hatchery staff are developing broodstock fish, so the DNR will be self-sufficient in spawning and rearing blue catfish. Already, anglers are catching blue catfish up to 20 inches long. With continued wise management and stocking efforts, this species will again be common in West Virginia's large rivers.

Many of us know the walleye from our reservoirs and large river tailwaters, but walleye were once fairly abundant in many of our rivers and streams. Through a cooperative project with the Virginia Department of Game and Inland Fisheries, Ohio University and Virginia Tech, a native strain of walleye is now being introduced into the New River, Cheat River, as well as the Ohio and Kanawha rivers. Already these efforts are showing promise. Increased numbers of walleye are being reported from the New River during Wildlife Resources Section electrofishing surveys. In addition, Ohio River anglers are reporting catching an increased number of small walleye. With the more protective angling regulations, increased rearing by Wildlife Resources Section hatchery staff and stocking into our suitable rivers, as well as continuing improving habitat quality, anglers will once again be seeking walleye in rivers such as the New, Cheat and Kanawha.

## Enhancement

Muskellunge and smallmouth bass are two of the “keystone” fish species inhabiting the state's rivers. Many of our notable muskellunge and smallmouth bass fisheries are actually the product of past DNR programs. Now, Wildlife Resources Section staff are expanding these programs to include new rivers where these species were once found.

Muskellunge are now being stocked in the Coal River (Lincoln, Kanawha, and Wayne counties) and Fishing Creek (Wetzel County). Improved and expanded rearing facilities at the state's warmwater hatcheries and more efficient use of advanced fingerlings have provided opportunities for these restoration efforts.

The same is true for smallmouth bass. This familiar species is now being restored in the Middle Fork of the Buckhannon River and the Tug Fork River. Again, increased hatchery capacity and a better understanding of rearing techniques have provided this opportunity.

Until the early 2000s sauger were not reared in West Virginia's warmwater hatcheries. Since then,



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*Native river strain of walleye raised at Palestine Hatchery.*

through a cooperative project with the Kentucky Department of Fish and Wildlife Resources, sauger reared in our state's hatcheries have been introduced into the Tug Fork, Kanawha, Little Kanawha and Monongahela rivers. The introduction of these three species and the resulting restored fish populations will not only amend past habitat degradation, but more importantly provide increased angling opportunities in many of the state's more productive river systems.

Restoration does take time; and patience, as we are told, is a virtue. But with continued demonstrated success of these programs, West Virginians may once again catch native walleye in the Cheat River, the noble muskellunge in Fishing Creek, the prized sauger and smallmouth bass in the Tug Fork, and observe and catch West Virginia's truly “big river” fishes, the paddlefish and shovelnose sturgeon, in the Ohio and Kanawha rivers. This will leave a legacy of which we all can be proud.

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