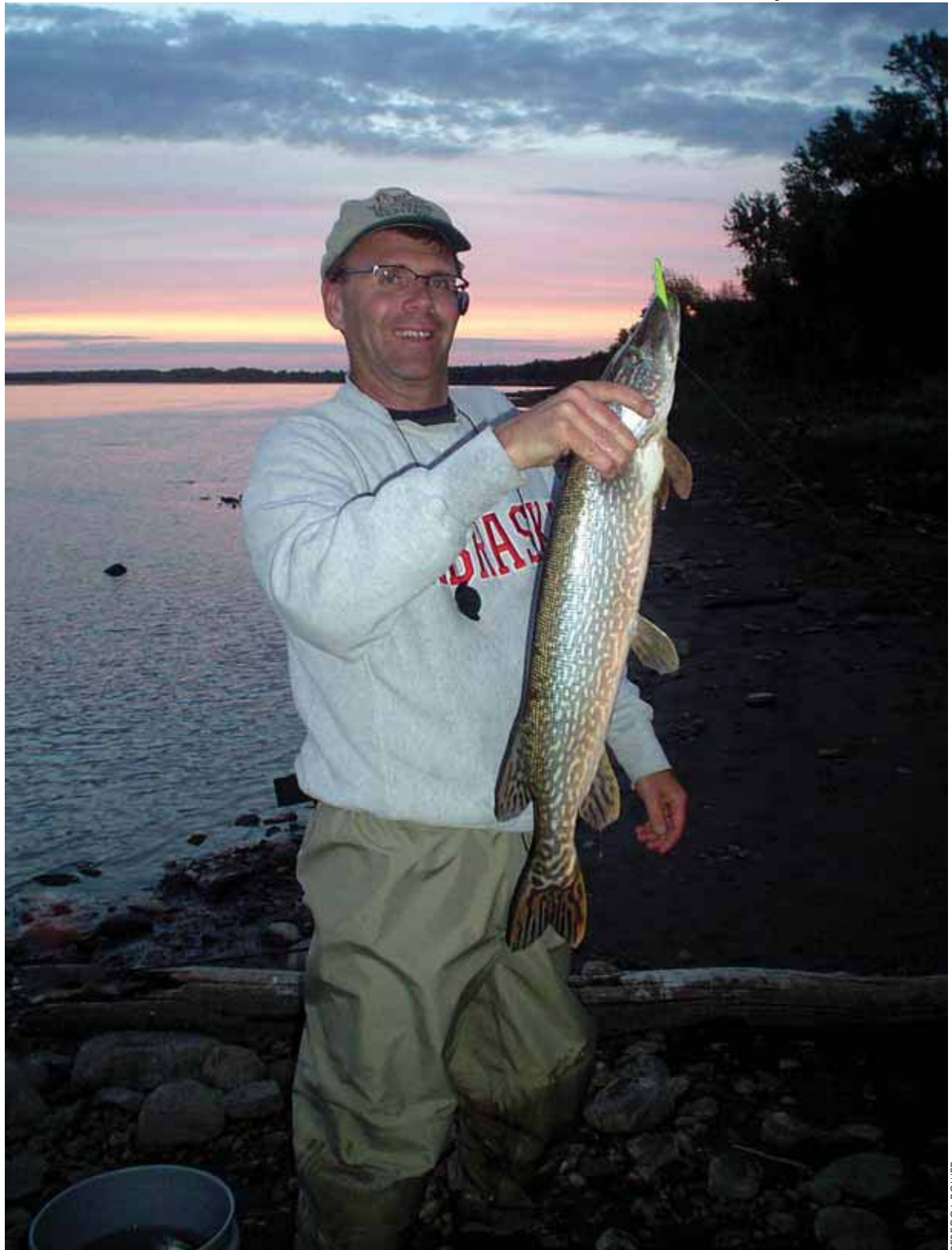


Rising Water Growing Optimism

By Ron Wilson



Greg Power, North Dakota Game and Fish Department fisheries chief, with a northern pike from the Missouri River.

REBECCA POWER

After years of drought, the stars aligned in 2008, boosting upper Missouri River basin water levels several feet. The surprise rise enhanced angler and boater access on waters such as Lake Sakakawea, while providing a much-needed base to possibly even higher levels in 2009.

Both Sakakawea and Lake Oahe had positive gains in 2008. The upstream reservoir was 8 feet higher than the 2007 high, while Oahe was up 11 feet. "We saw improvements in water levels because of late winter snows in the mountains, early spring rains on the plains, coupled with flooding in the lower Missouri River basin," said Greg Power, North Dakota Game and Fish Department fisheries chief. "These were the perfect ingredients for us."

While water levels and habitat conditions improved in 2008, Department fisheries biologists note the water rose too late in the year to benefit spawning fish or increase productivity. The first substantial benefits should be realized in 2009.

"In Lake Sakakawea, the primary impacts of years of drought include reduced reservoir access, dramatic reductions in coldwater habitat and coldwater forage abundance, poor spawning/rearing habitat, and perhaps most importantly, the greatly-reduced reservoir productivity," said Dave Fryda, Department Missouri River System supervisor. "While some impacts like boat access are immediately apparent to anglers, others such as declines in reservoir productivity occur more slowly and are the most difficult to address."

All lakes have a carrying capacity based on their environmental conditions, Fryda said. Plankton serves as food for larval fish (walleye and others) and for forage fish, and make up the foundation of the food chain. Plankton abundance in Sakakawea, for example, mirrors reservoir elevations, and current plankton abundance is low. Yet, there is hope that is about to change.

"The thousands and thousands of acres of exposed lake bed have grown up in vegetation that will provide phenomenal spawning substrate as well as

dramatically increase reservoir productivity as it begins to refill," Fryda said. "Terrestrial vegetation was inundated for the first time in many years in 2008 ... those benefits should begin to positively improve reservoir productivity in 2009."

Missing from Sakakawea is a strong year-class of rainbow smelt, yet the potential is there for this important forage fish to rebound some in spring. Coldwater habitat and, ultimately, rainbow smelt abundance are greatly compromised when reservoir elevations fall below 1,825 feet above mean sea level. Sakakawea hit that mark in 2008 for the first time since 2003, but the water returned well after the smelt spawning window.

"For smelt to have a chance to successfully spawn in a given year, they need a stable to rising water level in mid-April to mid-May, access to suitable spawning substrate, favorable weather and adequate plankton abundance for newly-hatched smelt to feed on," Fryda said. "On Sakakawea, very little suitable smelt spawning substrate (gravel and cobble) is available below 1,825 msl. Smelt are very shallow spawners and often deposit their eggs in only a few inches of water."

So, even with rising water levels, as were seen in 2006 and 2007, smelt reproduction isn't guaranteed, Fryda said. Smelt spawning success was very poor again in 2008 as water levels dropped throughout the spawning period when fisheries biologists documented eggs left high and dry at key spawning areas. Hope for a strong smelt year-class lies in the rise in lake levels in 2008, and a rising pool during the critical spawning period in 2009.

"To have a year-class of smelt is critically needed in Sakakawea," Power said. In 2007, rainbow smelt abundance was estimated at only about 10 percent of what it was in 2000. The 2008 survey documented another dramatic drop in smelt abundance as the mediocre 2004 year-class vanished from the system. Currently, rainbow smelt abundance and biomass have declined by more than 95 percent since 2000.



Missouri River System water levels in North Dakota started to climb in 2008, inundating vegetation left high and dry for years. This photo was taken along Lake Oahe just north of the North Dakota-South Dakota border.

CHRIS GRONDAHL



Lake Audubon, which doesn't get as much ink as nearby Lake Sakakawea, but receives water from the big lake, surrendered a couple of nice walleyes to this young angler.

GREG POWER

The last strong year-class for this short-lived forage fish was 2002.

Department fisheries biologists haven't stocked walleyes in Sakakawea since 2005, yet they've documented some natural reproduction in the last couple years. "All of our biological data are signaling that walleye stocking is not a desirable action at this time," Fryda said. "Coldwater forage abundance is at an all-time low. Various other warmwater forage species are important to walleye diets during certain times of the year, and can partially fill the void left by smelt in the future. However, the walleye population needs to remain at a reduced level to allow those forage fish to expand."

Although the overall abundance is down from most of the 1990s, the 10-15-inch walleye population is currently the third highest since 1968. "Our test netting has shown that overall walleye abundance has been relatively stable over the last three years," Fryda said. "However, walleye body condition in 2007 and 2008 was the poorest since smelt were introduced in 1971. This strongly implies that the alternate forage species have not been adequate to support the current walleye

population, and walleye abundance needs to decline somewhat more."

Today, the walleye population is dominated by smaller, younger fish primarily from the 2003 and 2005 year-classes. "For the time being we're allowing Mother Nature to maintain those year-classes," Fryda said. "At the appropriate time, however, we are prepared to use stocking to fill in if we see a complete reproductive failure."

The Game and Fish Department and others have spent millions in an effort to get anglers and boaters on the water during times of drought. Access improved dramatically on the Missouri River System in 2008 with increased water levels, once again making many permanent boat ramps usable for the first time in years.

Getting on the Missouri River System in North Dakota won't be a problem in 2009, said Bob Frohlich, Department fisheries development supervisor. The biggest thing, he said, is for the first time in several years the majority of the boat ramps on Sakakawea will be operational.

From a fishing standpoint, Fryda said Sakakawea anglers can look forward to good numbers of harvestable-sized walleye, but relatively few larger fish. Northern pike numbers remain low compared to the late 1990s and early 2000s, yet Sakakawea remains by far the best place for an angler to catch a trophy-size fish of more than 20 pounds. "One thing that anglers may have to adjust to due to dramatically increased water levels is fishing style/techniques," he said. "Many areas will have a lot of flooded vegetation during the 2009 season. Consequently, fish locations and angling techniques may need to be modified."

The Missouri River and Lake Oahe fishery should be excellent in the coming season. "Fishing has been good throughout winter when weather conditions allowed anglers to fish," Fryda said. "Fishing should remain good for quality-sized fish through spring and summer. However, based on the last several seasons, anglers can expect slower fishing later in summer if young-of-the-year gizzard shad once again are very abundant."

Although they are often overlooked and underutilized, channel catfish populations are excellent throughout the Missouri River System in North Dakota, offering a great opportunity for those willing to deviate from the walleye mindset. "Smallmouth bass in the Garrison Reach are another overlooked species," Fryda said. "Areas around Bismarck are especially good."

As always, Fryda said, predicting what the salmon run will be like in 2009 is difficult. Due to chronically low coldwater forage abundance, salmon numbers won't be stellar. However, similar to recent years, some decent salmon fishing will likely occur at some point in the season.

RON WILSON is editor of North Dakota OUTDOORS.



GREG POWERS

Dan Micek, Bismarck, caught this chinook salmon in the Missouri River. Historically, salmon found in the river were Lake Sakakawea-stocked fish that made it through the dam. Today, salmon are stocked in the Garrison Dam Tailrace as well as Sakakawea.

Revamping Ramps

If conditions allow, the North Dakota Game and Fish Department plans to make overdue improvements on a handful of Missouri River boat ramps in spring and fall 2009.

"While some of the projects are fairly simple," said Bob Frohlich, Department fisheries development supervisor, "others are more complicated and will involve the placement of large quantities of rock and the removal of all or portions of existing ramps, followed by replacing them with new, wider and longer concrete ramps."

Frohlich said there are actually seven ramps on the to-do list, but likely only four to five will be completed this year. Ramp sites scheduled for work include Kimball Bottoms (Desert), Graner Bottoms (Sugar Loaf), MacLean Bottoms (Gun Range), Fox Island Park, Little Heart Bottoms (Schmidt), Sanger (Cross Ranch) and Steckel Boat Landing (Wilton).

When the ramps were constructed, they were all installed at the best possible places at that time. But considering the dynamic nature of the Missouri River, things have changed. At some sites, the main channel has switched and is now on the opposite side of the river.

"As the mighty Missouri meanders and does what a river does, it has eroded and undermined most of these ramps, creating the need for this new construction," Frohlich said. "The end result will be better, longer and wider ramps, along with stabilization and protection of the shoreline and ramp areas from further erosion and undermining."

The Department will oversee several construction crews, with the goal of completing four to five ramps in spring and possibly the remainder this fall or next year. Typically, river flows are too high during summer to tackle these kinds of projects.

The amount of the work needed at Graner and MacLean bottoms will remain a question mark until ice-out. "We won't even be able to identify the scope of the work needed to be done at these two sites until then," Frohlich said. "These are big projects that will likely carry into 2010."

Frohlich said the Department is hoping to install temporary boat ramps at Fox Island and Kimball Bottoms while construction of the new ramps is underway. "While work on all of these Missouri River ramps may hinder access for anglers and boaters somewhat, the work is being done to benefit them in the long run," he said.