WELCOME BACK, WATER A once-dry tributary pours water into Fort Peck Reservoir's Upper Missouri Arm in summer 2011. During just a few months, heavy rains across the surrounding watershed, along with record snowmelt in the Rocky Mountains, raised the reservoir an astonishing 14 vertical feet. The high water flooded shoreline vegetation, sending vast amounts of nutrients into the reservoir's ecosystem.

The Water Is Up, and PECK IS BACK

When water filled Fort Peck last year and flooded its shorelines, a storehouse of nutrients washed into the reservoir. That triggered an ecological chain reaction, creating some of the best fishing in years for walleye, northern pike, smallmouth bass, and other species. **BY ANDREW MCKEAN**

AERIAL PHOTO OF FORT PECK RESERVOIR BY CHRISTOPHER BOYER

When fishing is good on Fort Peck,

it seems like every wind-blasted point and slick-shale shoreline holds a hungry walleye.

But when fishing is slow on the sprawling northeastern Montana impoundment, anglers are left wondering: How can so much water seem so appallingly empty?

Like grain prices and weather in this wide-open land of extremes, fishing on Fort Peck tends toward the generous or the stingy.

You can predict walleye and northern pike activity with a fair degree of reliability just by looking at the reservoir's water level. When it's so low that hundreds of feet of exposed gumbo shoreline separates the sagebrush prairie from the gray-green water, chances are the bite will be off (I'll explain why in a minute). But when Fort Peck's full pool starts lapping the tops of boat ramps and water inundates bays grown over with cottonwood saplings and salt cedar, it's time to hook up your boat, stock up on minnows and leeches, and head to Montana's most underutilized fishery.

That time is right now.

Fort Peck's current high water level—and the diverse fishery it supports—justifies a trip this summer. Local anglers are saying, "Peck's back," and they prove it with photos of heavy stringers posted on tackle shop walls and Facebook pages. It's not just walleye on those stringers either, but also smallmouth bass, northern pike, catfish, and even unexpected species like freshwater drum and crappies.

Andrew McKean is editor of Outdoor Life. *He lives outside Glasgow, about a half-hour drive from Fort Peck Reservoir.*

Best and worst of times

Though often called a lake, Fort Peck is technically a reservoir, impounding the Missouri River with an earthen dam that was the world's largest when completed in 1935. The reservoir was built to hold melted snowpack gushing into the river from surrounding plains and the Rocky Mountains. That annual spring torrent flooded farmland and washed out towns across the region until Depression-era WPA workers built the dam.

Though the reservoir's water levels have risen and fallen widely over the past 70-plus years, the most extreme fluctuations occurred recently. Fort Peck set an all-time elevation record in June 2011, storing so much water from record prairie rain and snowpack, combined with above-normal mountain snowmelt, that it ran out of room. During just a few months the reservoir gained 14 vertical feet, or enough water to fill a second Canyon Ferry Reservoir, Montana's second-largest impoundment. As a result, the U.S. Army Corps of Engineers released a record amount of water through the power turbines below Fort Peck Dam and an even greater volume over the lake's emergency spillway directly into the Missouri River.

> "The manipulation of Fort Peck's water level is the most important fisheries management tool in the entire tool box."

The rise in 2011 was especially incredible considering it came after years of drought and reservoir drawdowns that left Fort Peck at a record-low elevation in 2007, just four years previous. "We've seen the worst of times and the best of times in a surprisingly short window," says Steve Dalbey, Montana Fish, Wildlife & Parks regional fisheries manager in Glasgow. "And the way the fishery responded to high water last summer and this year confirms that the manipulation of Fort Peck's water level is the most important fisheries management tool in the entire tool box."

It's also the most exasperating. That's because the Corps operates Fort Peck Dam as part of a hydrologic system extending from Montana down the Missouri River to St. Louis. The federal agency adjusts the capacity in all reservoirs along the river to balance such competing interests as barge traffic, flood control, irrigation, and sport fishing.

In other words, the Corps, not FWP, controls Fort Peck's most important fisheries management tool.

The up-and-down effect

Because Fort Peck's surrounding landscape is less fertile than what's found in states to the east, the water has fewer nutrients, says FWP reservoir biologist Heath Headley. Fort Peck can't produce the same biomass of fish per acre as, for instance, Ohio's portion of Lake Erie or Minnesota's Mille Lacs Lake. But Fort Peck can receive an important influx of nutrients if water levels rise and fall at the right times. It has to do with shoreline vegetation.

Ideally, says Headley, the Corps would gradually draw the reservoir down several feet beginning in late summer and leave it there for a year or two, allowing shoreline vegetation to take root and grow. "Then the best thing would be to raise the water level several feet in March every couple of years," he says.

That would do two things. First, the well-established shoreline vegetation would provide a massive nutrient boost, kicking the reservoir's food chain into high gear. When water levels rise, shoreline plants drown and then decompose. The decayed matter provides food for zooplankton and other microorganisms at the base of the food chain. Newly hatched walleye and other fish species eat zooplankton. So do aquatic insects. Minnows eat the insects, and predator fish such as walleye and pike eat the minnows.

Second, water raised in early spring corresponds with the yellow perch and northern pike spawn. Those species lay their eggs on sturdy underwater structures, such as submerged sagebrush. "If the reservoir elevation comes too late in spring, then perch

PECK'S FISHY SMORGASBORD Though the reservoir is best known for its walleye, other species abound too. Clockwise from upper left: Both black and white crappies, caught anywhere anglers find submerged trees or other woody structure, produce white fillets prized for their sweet, delicate flavor. Smallmouth bass, some topping 22 inches long, are pound-for-pound one of the hardest-fighting fish to swim in freshwater; the current state record, a 6.66-pounder caught in 2002, came from Fort Peck. Channel catfish, another strong and delicious fish, are generally caught with bait but will occasionally take a jig or even a crankbait.

CLOCKWISE FROM TOP LEFT: NATHAN COOPER; CRAIG & LIZ LARCOM; CRAIG & LIZ LARCOM

A guide to fishing Fort Peck's diversity

Fort Peck is Montana's most diverse fishery, containing 47 native and introduced species. Many are forage fish—shiners and chubs—but most species are big enough to grab an angler's bait and put up a fight. Toss a worm-tipped jig over the side of a boat and you'll have no idea what might bite. Game species actively managed and inventoried by FWP include walleye, northern pike, Chinook salmon, lake trout, smallmouth bass, sauger, and channel catfish. Others that anglers regularly catch include black bullhead, sunfish, shovelnose sturgeon, and freshwater drum. Here's a snapshot of what's biting—and where and when—on Fort Peck Reservoir:

Walleye

Fort Peck's iconic species is well distributed throughout the reservoir. For anglers after truly big fish—10 pounds or more—FWP reservoir biologist Heath Headley recommends the Upper or Lower Big Dry Arms starting around Father's Day. "Because this is right after the spawn, most of the larger female walleye are still shallow and easier to catch than later in the year when they suspend in deep water," he says.

In late June through July, says Headley, the hottest walleye bite tends to be in the middle reach of the reservoir, from Duck Creek to Hell Creek State Park.

Crappie

First stocked in the 1950s, both white and black crappies hang out near submerged woody structure, such as underwater logs, which are few during low-water years. But when reservoir levels are up, there's plenty of submerged woody structure to attract these tasty panfish. Best spots are the upper main-reservoir arm, especially in the Fourchette Bay area uplake to Crooked Creek. Headley recommends that crappie anglers look around old cottonwood stands flooded when Fort Peck Dam was built 70-plus years ago. "Some old cottonwood trees are still standing under the surface, and crappies love them. Trees flooded in the past few years are also good spots to try."

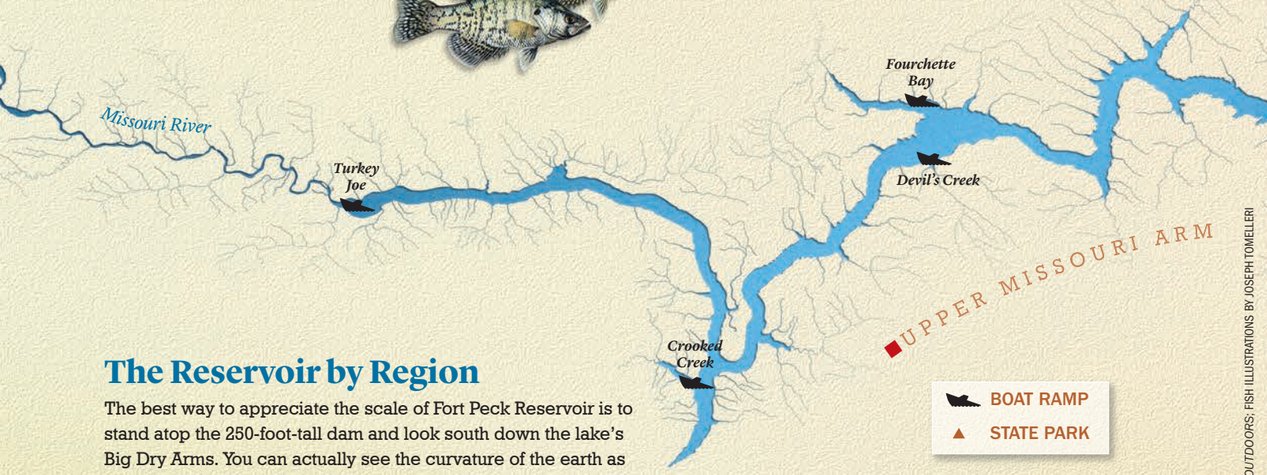
Smallmouth bass

As Fort Peck's most self-sufficient game species, the smallmouth bass is relatively immune to low-water cycles. "Smallmouth bass are one of the most abundant game fish we collect in our annual seine surveys," says Headley. "And they're still a relatively new species and haven't plateaued in terms of abundance."

Hotspots for smallmouth numbers—and trophy-sized fish—are the Upper Big Dry Arm and the main-reservoir arm from Gilbert Creek uplake to Crooked Creek.

Freshwater drum

Possibly the most neglected fish on Fort Peck is the drum. This cousin to the saltwater redfish has delicious, white, bone-free fillets. Drum bite leeches and worms, put up a feisty fight, and grow to over 15 pounds. Anglers generally catch drum accidentally while fishing for bass or walleye with bait-tipped spinner rigs along submerged rubble piles. The best area for big drum is the Upper Missouri Arm from Bone Trail to Turkey Joe.



The Reservoir by Region

The best way to appreciate the scale of Fort Peck Reservoir is to stand atop the 250-foot-tall dam and look south down the lake's Big Dry Arms. You can actually see the curvature of the earth as the water bends out of sight toward Nelson Creek and the mouth of Big Dry Creek, some 40 miles over the horizon. The habitat of the Big Dry Arms—muddy water with numerous rock shelves and sunken humps—varies significantly from the habitat of Fort Peck's main-reservoir arm, with its deeper, clearer water. The reservoir's vast size and wide variation is why Heath Headley likes to define Fort Peck by specific regions. His guide is useful for anglers:

- **Upper Missouri Arm:** *Snow Creek uplake to the head of the reservoir*
- **Middle Missouri Arm:** *The Pines uplake to Snow Creek*
- **Lower Missouri Arm:** *Face of Fort Peck Dam over to Bear Creek and up the main arm of the lake to The Pines*
- **Lower Big Dry Arm:** *Bear Creek and Haxby Point uplake to Rock Creek*
- **Upper Big Dry Arm:** *Rock Creek upstream to the mouth of Big Dry Creek*

MAP GRAPHIC BY LUKE DURAN/*MONTANA OUTDOORS*; FISH ILLUSTRATIONS BY JOSEPH TOMELLERI

Chinook salmon

Landlocked king (Chinook) salmon occupy the lower part of Fort Peck nearest the dam. These coldwater species don't receive much attention until late summer, when adult fish congregate along the face of the dam to swim in the reservoir's most abundant coldwater habitat.

"I probably get as many calls about salmon fishing as I do about walleye fishing," says Headley. "Starting about July 1, people start calling about the salmon return. It's a neat coldwater fishery in the middle of the sagebrush prairie, and for a few months each fall the salmon bite really drives a lot of the lakeside economy." Headley says anglers from throughout the region descend on Fort Peck using specialized trolling gear to catch Chinooks that can grow up to 25 pounds.

Using electrofishing gear, FWP crews capture adult salmon and then strip milt as well as eggs that are fertilized and reared in the Fort Peck Hatchery. It's a labor-intensive "put-grow-and-take" effort, but Headley says it's definitely worthwhile because "the salmon add an important off-season trophy fishery to the reservoir."

Northern pike

Pike need high water even more than walleye do. Inundated banks create weedy cover where forage species spawn and small pike hide. When the water level rises, especially incrementally as it has in the last few years, emergent vegetation floods, pike spawn in weedy bays, and spottail shiner and other forage fish populations explode.

Headley says he expects to see many pike caught this year. "We stocked about 200,000 fingerling pike annually during the drought years, but that never amounted to much without the right habitat. With the recent good water years, they're showing up everywhere."

Focus on deep-water edges of shallow, weedy bays from Duck Creek uplake to The Pines and down the Big Dry Arm to the Rock Creek area.

Channel catfish

"Anglers are not fully utilizing this fishery," says Headley of Fort Peck's catfish population. No wonder. Montana is not known for these whiskered game fish. Yet Headley notes that channel cats "are the most abundant species—at least in our sampling nets—in the Upper Missouri River Arm. I don't think people realize how many catfish are up there."

Best catfishing is in the upper, riverine sections of the reservoir, or areas with lots of incoming water such as the mouth of the Musselshell River near Crooked Creek and the upper end of the Big Dry Arm, which consists of McGuire and Nelson Creeks.

Goldeye

A native species that's considered more trash than target is the toothy, ravenous goldeye. Uplake from Timber Creek, these aggressive opportunists comprise the majority of fish caught by anglers looking for game species. Goldeye aren't especially tasty, except when smoked, but they will attack lures nearly their own size, which makes them especially fun for kids.

Lake trout

With more miles of shoreline than the entire California coast, Fort Peck is characterized by abundant edge habitat: points, finger bays, creek mouths, and gumbo shallows. But there's also plenty of deep-water habitat, especially in the widest portion of the reservoir just behind the dam.

Lake trout thrive in this cold, clear water that drops to 200 feet deep. Anglers who invest in the right gear—large boats, downriggers, and the type of big minnow-imitating trolling lures used for coastal salmon—can have epic days. Lake trout of 15 or even 20 pounds, dredged from the reservoir's deepest depths, are not uncommon.

Lake trout fishing is best in late summer when the walleye bite dies off.

Sauger

A cousin of the introduced walleye, sauger are native to the Missouri River and were once the most abundant game fish predators in Fort Peck. Numbers have declined for decades, but Headley says the Upper Missouri Arm, from Timber Creek up to Crooked Creek, hold good numbers of fish."Many of those sauger probably use the Missouri River for spawning and seasonal movement," he says.

and pike have already finished spawning, and their spawn isn't nearly as successful as it could be," Headley says.

Unfortunately, the drought starting in the early 2000s caused the reservoir's water level to drop and kept it low for years. Fort Peck marinas looked like ghost towns, and boat ramps sat stranded hundreds of yards from the water's edge. Vegetation grew on shore, but it never flooded. The low water also exposed large expanses of gravel and rock that during most years are critical spawning and rearing areas for several fish species.

The drought years were anomalies, but even in normal water years the reservoir's water levels are often tough on fisheries, says Headley. Each summer the Corps lowers Fort Peck to provide water for downstream users. Then, the following spring—usually too late to benefit perch and pike—it allows the reservoir to fill up again with runoff, only to open the floodgates a few months later to send the stored water downstream. "That constant up and down in lake elevation makes the varial zone [periodically inundated shoreline] unproductive for vegetation," Headley says. Shoreline plants can't take root, he explains, when they get drowned twice a year.

The most recent drought now behind them, Headley and Dalbey are celebrating the high water lapping Fort Peck's shoreline. The reservoir's water levels were raised incrementally in 2008, '09, and '10, "just like we wanted," Dalbey says. Then came the floods of 2011, filling the reservoir to its brim.

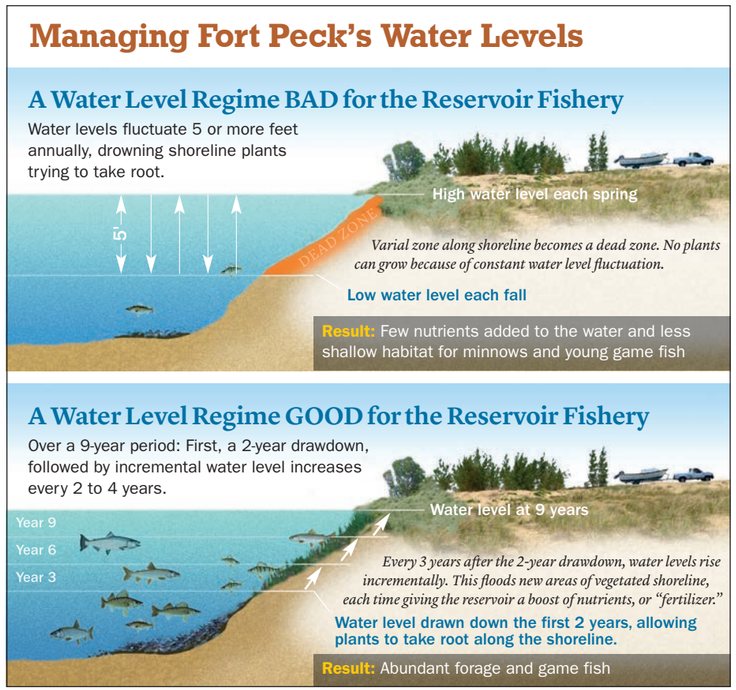
> "When there's so much natural food in the system, walleye start ignoring bait and lures."

Dalbey explains that incremental water level increases bring in a new crop of nutrients gradually over a period of years, rather than all at once. "Think of shoreline vegetation as 'fertilizer' for the reservoir," he explains. "If you use it all up in one year, with too much of a water level rise, then you've got nothing left over. But if you can draw that 'fertilization' out over several years, the net benefits to the reservoir are much greater."

The benefits to anglers are greater too. The revitalized reservoir ecosystem produces more and healthier fish. And much of the renewed ecological activity occurs near shore, making game fish more accessible to anglers.

Up to a point. Dalbey is quick to note that high water is always great for fish, but not always for fishermen. "After a few years of good forage production, there's a tipping point, when there's so much natural food in the system that walleye and other predator species start ignoring bait and lures and can be tough to catch," he says. "When walleye growth rates are at their highest, angler catch rates are often at their lowest."

The latest water cycle has proved to Dalbey and Headley that the pace and pattern of water fluctuations is critical to maintaining Fort Peck's high standard of fishing—even more so than the number of walleye stocked by the department or the number of fish that anglers keep.



Stock, yes, but what size?

Others aren't so certain. Like many Fort Peck walleye anglers, Steve Harada is as much interested in stocking levels as he is in water levels. The former state president of Walleyes Unlimited credits the current fishing bonanza mostly to the walleye hatched and raised at the Fort Peck Hatchery and stocked several years ago. "We've had a good year or two of fishing, but I don't think Fort Peck has reached its full potential," says Harada, who helped lead the effort to build the $26 million fish-rearing facility. "If the hatchery could produce walleye to its full capacity, I think the strong fishing could continue."

Headley and Dalbey agree that the hatchery is critical to maintaining Fort Peck's renowned walleye fishery. But exactly what number and size of walleye should be stocked is still open to debate. The hatchery produces both walleye fingerlings and mosquito-sized fry. An argument for stocking fingerlings is they are bigger and more likely to survive. "One problem is that it's costly to raise them to that size," Dalbey says. Even though fry survival is much lower (because the fish are tinier and more vulnerable), FWP can stock far more of the newly hatched fish for a given amount of money. If environmental conditions are right, as they have been the past few years, large numbers of fry will end up growing large enough to bite angler's lures.

Then again, some years it may make more sense to stock fingerlings. "The problem is no one knows what effect stocking has on Fort Peck's walleye population, or when it makes sense to stock fingerlings versus fry," says Dalbey. FWP has recently begun a four-year study to find out. "Stocking is definitely critical, but to make the best use of license dollars we want to find the right mix of planting fry and fingerlings," he says.

All this talk about walleye reflects the importance of *Sander vitreus* on the big lake. Though Fort Peck has a dozen other species capable of producing great fishing—the reservoir holds seven current state fish records—it's the glassy-eyed walleye that drives angler interest and FWP management priorities. Headley says he devotes roughly 85 percent of his time to walleye management, despite a dozen other species arguably in greater need of attention.

Keeping close watch on these other species is Jim Schultz. The Fort Peck angler has fished the big reservoir for three decades, and he says when the angling is hot, it's among the best fishing waters in the country. "In terms of numbers of fish and size of big fish, it's off the charts," says Schultz. "And not just walleye. There's great fishing for northern pike, smallmouth bass, lake trout, and salmon."

Headley agrees. "Right now is the time to take advantage of good water conditions and great fishing on Fort Peck. We are in the high arc of a water cycle," he says. The biologist knows that by next year increased forage abundance will lower angler catch rates. Also, another drought will no doubt be back, and with it lower lake levels and fish numbers. "When the dry times return, we won't have the sort of abundance we're seeing in pretty much every game fish that swims in this reservoir," he says.

In 2011 FWP completed a ten-year management plan for Fort Peck's fisheries. It provides a road map for FWP biologists as they manage the lake's diverse fish species. The plan is based on input from anglers, businesses, and staff of other state and federal agencies, as well as detailed analysis of the reservoir's ecological conditions. "It incorporates local concerns, our goals, and what the reservoir can and can't biologically produce," says FWP biologist Heath Headley. "It then maps out stocking levels, lake level management recommendations, and other things we do to manage these species."

Read the plan by visiting the fwp website at fwp.mt.gov and searching for "Fort Peck."

STAR OF THE SHOW Fort Peck gets nowhere near the national attention of famous walleye waters like Ohio's portion of Lake Erie or Minnesota's Mille Lacs Lake, both close to large metropolitan areas. But Peck catch rates, average fish size, and trophy catches rival those of the headliner walleye waters. Unlike those lakes, Fort Peck has little natural walleye reproduction and requires annual stocking of fry or fingerlings. A new management plan outlines stocking levels that don't end up producing too many predator fish, which could deplete the lake's forage population. "We definitely don't want to endanger Fort Peck's ability to continue producing fat, healthy walleye," says FWP regional fisheries manager Steve Dalbey.

FISHERY ILLUSTRATION BY LUKE DURAN/MONTANA OUTDOORS; PHOTO BY NATHAN COOPER