

Zumbro Birds

BALD EAGLE

These “fish hawks” feed primarily on river fish and carrion (dead animals). They nest along the Zumbro River. Bald eagles almost disappeared in the 1960s due to a pesticide called DDT. Endangered Species Act protection and a ban on DDT helped these eagles to recover.



RED-SHOULDERED HAWK

This raptor hunts mice, chipmunks, frogs, and snakes in forested wetlands and rivers. They perch on lower tree branches watching and waiting for prey. Then they glide down and catch prey off the forest floor. These birds nest in forests near waterways.



GREAT BLUE HERON

These four-foot-tall grayish blue birds stand in shallow water hunting for fish, frogs, and crayfish. Special eyes allow them to hunt day or night. Herons have been known to toss a fish into the air and swallow it headfirst. Despite their large size, they only weigh five pounds.



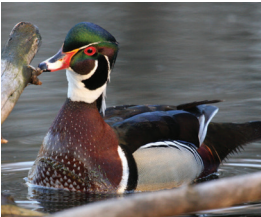
BELTED KINGFISHER

Kingfishers dive into the water to catch small fish. They tunnel into riverbanks to nest. These birds also give a rattling call as they fly. While these birds look blue, the color comes from a special feather structure that bends light and makes it look blue.



WOOD DUCK

Wood ducks are one of our most colorful duck species. Unlike most ducks who nest on the ground, wood ducks nest in hollow trees adjacent to rivers or lakes. Wood ducks feed on acorns, seeds, insects, and berries. Wood ducks almost disappeared in the 1900s because of a lack of mature hollow tree nesting sites, but human management and nesting boxes have helped the species recover.



Zumbro Mammals

RIVER OTTER

This large member of the weasel family is a fast swimmer that feeds on fish, frogs, turtles, and crayfish. The otter’s dense fur keeps it warm, even when swimming in winter rivers. Otters slide down the river bank and into the Zumbro in what researchers can only describe as “play” behavior.



MUSKRAT

This aquatic member of the rodent family is smaller than a beaver, and much more common in the Zumbro Watershed. Muskrats eat cattails and other soft aquatic plants. They sometimes build domed island “lodges” out of mud and cattails in the middle of ponds.



GRAY FOX

Gray foxes are smaller than our more common red fox. They are the only Minnesota fox that can climb trees like a cat. Since most of the forest land in the Zumbro Watershed is along waterways, gray foxes congregate near the rivers as well.



BIG BROWN BAT

The big brown bat comes out at night to feed on insects (mosquitoes, moths, beetles), often hunting over Lake Zumbro and the Zumbro River. Bats have good eyesight, but use sonar-like “echolocation” to catch insects.



Photo Sources: All photos courtesy of the US Fish and Wildlife Service, unless otherwise noted. River Otter (©iStock.com/stepanjezek); Muskrat (NPS Photo); Dragonfly Nymph (©iStock.com/Vitalii_Hulai); Mayfly Nymph (NPS Photo); Mayfly Adult (©Kevin Strauss); Black Sandshell Mussel (MN DNR Photo)

A special thanks to these organizations for their support.



AMAZING

ANIMALS of the

ZUMBRO



www.zumbrowatershed.org

What is a Watershed?

A **Watershed** is “all the land that drains to a particular river or lake.” The Zumbro Watershed consists of over 900,000 acres of farm cropland (primarily corn and soybeans, 70%), hayfields and pasture (12%), forest (11%), and cities (5%) in southeastern Minnesota.



Watersheds matter because the main causes of runoff pollution and flooding are tied to land use at the watershed scale. We can’t reduce flood waters by building bigger levies on the river bank. We need to capture and store rain and snowmelt in ponds or grassy fields so it can soak into the ground rather than rushing to the river.

Who is the Zumbro Watershed Partnership?

The Zumbro Watershed Partnership (ZWP) is a member-supported nonprofit organization dedicated to working for “Cleaner Water and Fewer Floods” in southeastern Minnesota.

After European-American settlement in the 1850s, settlers began draining wetlands and converting water absorbing habitats like prairies and forests into water draining landscapes like crop land and cities. Technological advances starting in the 1940s accelerated the trend to drain more water off the land and into the river and stream system. Runoff from farms has increased due to changing farm practices, including the conversion of hayfields and pastures into larger corn and soybean fields.

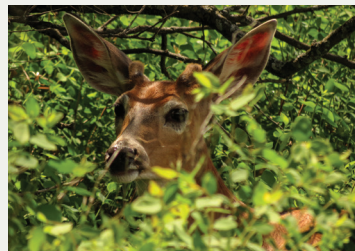
As a result, average water flow in the Zumbro River **increased at least 40 percent** from 1910 to 1980 and this trend continues today. While small spring floods occurred in the early days of white settlement, floods became bigger, more common, and more destructive starting in the 1940s.

In 2005, a group of citizens formed ZWP to work for “Cleaner Water and Fewer Floods” in the Zumbro Watershed. Currently, the group is working to reduce sediment and fertilizer pollution in the watershed and working with land owners, nonprofits, and government agencies to “Slow the Flow” of water in the watershed, which will reduce riverbank erosion and downstream flooding, and recharge our drinking water aquifers.

BECOME A MEMBER OR BUSINESS SPONSOR!
www.zumbrowatershed.org/membership

Outdoor Adventure Sites in the Zumbro Watershed

(see watershed map for locations; search online for more information)



Zumbro Zoe

For more information, visit our website at www.zumbrowatershed.org/wildlife



Places to visit in the Zumbro Watershed

- Oxbow County Park, Zollman Zoo**
Camp, picnic, hike, tour live animal exhibits, visit the nature center
- Chester Woods County Park**
Camp, picnic, swim, canoe
- Lake Zumbro**
Boat, waterski, fish, camp, swim
- Covered Bridge Park**
Picnic, camp, bike, swim, cross the historic bridge
- Zumbro Bottoms Forestry Unit**
Camp, hike, horseback ride

Zumbro Insects

Many of the insects that you see flying near rivers and lakes spent their juvenile stage living in the water as bug-like "nymphs" or worm-like "larvae." These insects leave the water as adults to mate and lay eggs back in the water. Some juvenile insects, like stonefly and mayfly nymphs, can only tolerate clean water environments while other juvenile insects, like mosquito larvae, can tolerate more polluted water.



Dragonfly Nymph

DRAGONFLY

Dragonfly nymphs live in the water and hunt aquatic insects, tadpoles, and small fish. They zoom through the water by expelling water from their abdomens.

Dragonfly adults can fly up to 30 mph. They can also hover and fly backwards like a helicopter. Adult dragonflies catch and eat mosquitoes and other insects in flight.



Dragonfly Adult



Mayfly Nymph

MAYFLY

Mayfly nymphs are intolerant of pollution, so finding them in a river indicates "good water quality." We've found this insect in some parts of the Zumbro River. The feathery structures on the abdomen are gills that allow it to breathe underwater.

Mayfly adults emerge in a swarm to mate, lay eggs, and die, often in a 24-hour period. Adult mayflies are a favorite fish food and many fly fishing flies resemble this insect.



Mayfly Adult

Zumbro Fish & Mussels

The Zumbro River is a great fishery. It is home to 11 species of gamefish, including channel catfish, largemouth and smallmouth bass, muskies, northern pike, perch, bluegills, and walleye.



BROOK TROUT

Brook trout live in clear, clean, springfed trout streams that drain into the Zumbro River. Trout feed on aquatic and flying insects.

SMALLMOUTH BASS

Smallmouth Bass feed on aquatic insects, smaller fish, and crayfish. They are intolerant of pollution, so they act as an indicator of cleaner rivers and lakes.



NORTHERN PIKE



Northern pike wait motionless at the bottom of a river and ambush smaller fish. Pike can spot prey like smaller fish, frogs, and duck chicks, up to 50 feet away in clear water.

BLACK SANDSHELL MUSSEL

This 8-inch long, black, elongated mussel was once common in large and medium rivers in Minnesota. Lately this species is more difficult to find in southern Minnesota due to increased sedimentation and runoff pollution. These mussels filter protozoans, algae, and bacteria out of the water and can live for decades.



Zumbro Reptiles & Amphibians

Reptiles and amphibians might seem quite similar, but they have many differences. Reptiles have dry, scaly skin and lay eggs on land. Amphibians have smoother, damp skin with no scales visible and they lay their eggs in the water.

PAINTED TURTLE

These colorful aquatic turtles sun themselves on river logs and rocks. They feed on vegetation, algae, insects, crayfish, and small fish and can live up to 55 years.



GARTER SNAKE

This nonvenomous snake eats worms, fish, frogs, toads, and insects. Garter snakes are excellent swimmers and can dive for long periods of time.

NORTHERN LEOPARD FROG

This frog gets its name from the dark spots on its back and legs. Males of this species makes a "snore-like" call to attract females in the spring. Leopard frogs eat insects, worms, and smaller frogs.



TIGER SALAMANDER

These black and yellow salamanders can grow up to eight inches long. They hunt for insects. Adults live and hunt on land, whereas juvenile salamanders are aquatic and live in ponds and streams.