

MILWAUKEE JOURNAL SENTINEL

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UW-Parkside students shock fish to check Root River's health

Two [University of Wisconsin-Parkside](#) students shocked the Root River's fish community last week by wading into the shallow stream with electrically charged wands.

Johnny darters, bluegills, largemouth bass and common carp were among the fish temporarily stunned at their arrival.

A two-day fish survey along the river in Franklin and a tributary in the Town of Raymond revealed a diversity of more than 20 warm water species, according to Mike Pauers, assistant professor of biological sciences at the University of Wisconsin-Waukesha.

Pauers pushed a small boat behind Josh Carlson and Danny Wilson as the students waded upstream with wands. The wands were connected by a cable to an electrical generator on the boat.

A small charge of 4 to 6 amps sent out by each wand created a field of electricity in the water that briefly disabled a fish from swimming away so that it could be netted and counted.

Fellow student Jordan Stepro waded between Carlson and Wilson. Each of them handed her a net after landing a few fish. She relayed the net to Pauers who emptied its contents into a plastic tub on the boat.

The crew stopped every 200 feet or so for Pauers to shout out the species of each fish. Stepro made notes for the inventory.

All fish were returned to the water unharmed.

This was the first electrofishing experience for Carlson and Wilson, and the equipment was only as effective as its novice handlers.

Craig Helker, a water resources biologist with the state Department of Natural Resources, walked with the students on the first day and advised them on how to hold wands below the water's surface. The students heard from Pauers if he observed a fish evade the electrical current and swim away uncounted.

The City of Waukesha hired Parkside to do the fish survey as part of a planned six-year checkup of the river's health. Pauers, an adjunct curator of fishes at the Milwaukee Public Museum, was brought in as fish sampling manager.

A follow-up survey will be done in November, said John Skalbeck, a geosciences professor at Parkside. Fish surveys will be done twice a year through 2022.

Parkside also is regularly testing river water quality throughout the year — recording temperature and collecting water samples to be tested for nutrients — to draw a complete picture of current conditions, Skalbeck said.

A survey of macroinvertebrates — snails, mussels, crayfish, leeches and insects — is scheduled this fall.

Checking abundance or scarcity of fish and other aquatic animals reveals the ability of a stream to support life, Skalbeck said.

WAUKESHA WATER DIVERSION

The river work is being done at the same time that Waukesha is planning to switch to a [Lake Michigan water supply](#) in 2023, Water Utility General Manager Dan Duchniak said. The city expects to begin distributing lake water to its customers that year.

Water will be returned to the lake as fully treated wastewater discharged to the Root River, a lake tributary, at S. 60th St. in Franklin. Waukesha has an option to purchase up to 74 acres southeast of Oakwood Road and S. 60th St. for the discharge.

The S. 60th St. crossing of the river is one of the four sites used in the fish surveys. The other three: Oakwood Road crossing of the river; 7 Mile Road crossing of the Root River canal, a tributary; County Line Road crossing of the river.

The crew last week walked upstream around 1,500 feet from each of those starting locations.

Pre-discharge monitoring was not required by the council of eight Great Lakes states that approved Waukesha's request for a Lake Michigan water supply in June 2016.

Results of water tests, fish and other aquatic animal surveys will provide a summary of the river's current conditions that can be compared to monitoring results done after Waukesha begins discharging to the river in 2023, Skalbeck said.

Waukesha and Oak Creek are continuing to negotiate a final contract for the lakeshore community to sell Waukesha no more than 8.2 million gallons a day of lake water by midcentury. That is the maximum volume set by the eight Great Lakes states last year in approving a diversion of lake water to Waukesha.

Milwaukee is attempting to wrestle the water deal away from Oak Creek at the last minute with an offer to sell water to Waukesha.

Both offers are under review, and Waukesha Mayor Shawn Reilly said he expects water utility staff to recommend one by early September. At that time, the Waukesha city council will approve a final deal with Oak Creek or accept the Milwaukee offer and begin negotiations with the new partner, Reilly said.