

YRPC Weekly News

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Northern Brook Lamprey Discovered in the Yellow River



By: Phil Sylla, President YRPC

Lamprey Evidence of a Healthy River

Arnie, on May 29, while collecting water quality data near the Tozer Lake bridge west of Spooner, I saw a cluster of about 10 eel like creatures burrowing and rolling together in a shallow riffle. I thought, “spawning fresh water eels!,” but a bit of research indicates not eels but Northern Brook Lamprey, a harmless species whose presence gives evidence of the good health of the Yellow River.

The 8 - 10 inch supposed eels were dark on top and yellowish brown on their bottoms. .Gemini, Google’s AI resource, said, “*What you witnessed is a classic*

spring phenomenon in Wisconsin's clean, gravel-bottomed rivers! Based on your description of the behavior, the date, and the "row of circles," you almost certainly saw **Northern Brook Lampreys** (*Ichthyomyzon fossor*).

"The "row of circles" you noticed is the smoking gun. Those are **branchial pores** (gill openings). Unlike modern fish that have a single gill cover (operculum), lampreys have seven distinct pore-like openings on each side. Your observation perfectly matches the life cycle of the **Northern Brook Lamprey**: They spawn in late May and early June when water temperatures hit a specific threshold. May 29 is peak season.

"Known for communal spawning, groups gather in shallow riffles to move stones with their mouths to create a communal nest (depression) in the gravel. The "rolling" and "burrowing" you saw was them vigorously vibrating to bury their eggs. Northern Brook Lamprey typically top out at **6 to 10 inches**. They are dark grayish-brown on top and lighter (silvery or yellowish bottoms). They don't have a "scary" mouth because, unlike their parasitic cousins, Brook Lampreys **do not eat as adults**. Their digestive systems actually degenerate; they emerge from the mud, spawn for a few weeks, and then die.

"Seeing a group of spawning Northern Brook Lamprey is a very good sign for the **Yellow River**. They are sensitive to pollution and siltation. Their presence indicates that the stretch of river you were at has high water quality and a healthy, stable streambed. Because they are non-parasitic, they pose **zero threat** to the game fish in the river. They are essentially the "songbirds" of the river—present for a brief, beautiful moment in the spring before disappearing."

I am not a biologist and Gemini's interpretation is not conclusive, but it gives one explanation of what I observed. I'm so glad I was at the right spot at the right time scouring the river bottom. It's lots of fun to be a Water Action Volunteer citizen scientist on the healthy Yellow River.

Heads-Up Arnie, we now have all phosphorus test results published for May on our website. Click the link below to access the website, then click on Stream Monitoring and scroll down to the Nutrient Monitoring section. We did discover some elevated phosphorus levels at one of our new test sites. Rivers are very dynamic so we need the median value of six tests (May-Oct) that will give us a better idea if there is an issue at that site.

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Got it

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