

# High Schoolers Learning from Trout

*Rushford-Peterson students finish year-long science project*

By John Weiss (<https://rootrivercurrent.org/author/john-weiss/>), June 3, 2025



*Rushford-Peterson students seine for bugs in Rush Creek. (Photo by John Weiss)*

RUSHFORD — As it turns out, students can learn from *many* teachers, not just the ones at the head of the classroom. During the second half of the 2024-25 school year, 62 Rushford-Peterson High School (R-P) sophomores had *more than 200* ‘teachers’.

Over the course of the semester, students watched these ‘teachers’ grow from luminous orange eggs into steelhead rainbow trout fingerlings up to three inches long.

On May 22, as they approached the end of their academic year, students released their trout/teachers into nearby Rush Creek to end their Trout in the Classroom (<https://mntu.org/trout-in-the-classroom/>) (TIC) project in Jacob Kramer’s biology room.

Rushford-Peterson was the only school in Fillmore County to include the program this year – but one of about 70 Minnesota schools and nature centers currently using Trout Unlimited’s TIC program. (*Root River Current’s* “Trout in the the Classroom | Opening a New World to Kids” (<https://rootrivercurrent.org/trout-in-the-classroom/>) covered the students’ introduction to the TIC project in February.)

The TIC program is adaptable for all ages from elementary through high school. The idea is to have students see the eggs hatch and grow into fingerlings, while learning the importance of the water chemistry trout need to grow. Students are taught how to test water for nitrate/nitrites and other factors.

Besides biology, TIC can be used in English, math, environmental education and other classes. But in talking with students, it seems there were more than 'classroom' lessons to be learned.

## Partnerships built on education

The idea began when Kramer met former R-P teachers and Trout Unlimited (<https://www.tu.org/>) (TU) members, Mike Jerezek and Dave Reinhardt, at church who told him about Trout in the Classroom. Kramer, now in his fifth year of teaching at Rushford-Peterson, was interested.

Kramer said he's a bit of a trout angler himself, but not a great one.

Still, he understands the most important part – being out on a beautiful stream where he can hear water tumble down riffles and feel the peace of the land and water.

Most students weren't avid trout anglers, but they live near trout streams and getting them to learn more about them – and trout – is a main idea behind TIC.





*Mike Jeresek watches as students Anthony Voxland (in the foreground) and Brode Vickerman net trout. (Photo by John Weiss)*

So that is why I brought about 275 eggs to his classroom in December.

Kramer slowly opened the container and was surrounded by freshmen who were fascinated to see the eggs. He warned one and all: no flash photos, that can kill the eggs.

Yes, trout can be delicate, but they can also be tough.

Over the months, the eggs hatched into tiny alevins and the learning kicked into a higher gear. Students had to continue to check the trout, count any dead ones, make sure water chemistry was right. It's meant to be very hands-on, seeing the fish not just reading about them.



*Rainbow fingerlings are netted from the tank to be put into a bucket for release. (Photo by John Weiss)*



It was fitting that on release day, Jeresek was in the classroom, helping students scoop up trout and put them in cooled buckets of water to be taken to Rushford's Rush Creek.

"I think one of the big things here is just the proximity," he said. They are 20 minutes, often fewer, away from streams. "It's just a natural fit," he said. Also helping were TU members Reinhardt and Dave Shaffer.

As Kramer hurried to get ice for the buckets, he said "the experience overall was very positive, well received. The students overall enjoyed it, seeing the trout grow."

Kramer said students learned how much work it is to keep them alive, "how much work it takes, how much you have to get right in the ecosystem to go from little, tiny trout eggs to trout you can actually catch."

Next year, he'll do it all over again.



*R-P student Madison Ingvalson holds several rainbow fingerlings. (Photo by John Weiss)*

Besides releasing fish, some waded the stream and kicked up the bottom to net aquatic macroinvertebrates, a key indicator of stream health. Others sampled the water for nitrate/nitrites and other key indicators of water quality.

One of the surprising highlights May 22 was what students found for bugs.



When Rush Creek was checked a while ago, few bugs were found, Kramer said. This time, it was a bug bonanza with a lamprey as a bonus. Students crowded around the bug table to see what was there.

“Put a check mark when you find bugs,” Kramer said. They are rated sensitive, less sensitive and tolerant to pollution. “That’s a stonefly, that’s an aquatic worm. That’s a net spinner caddisfly” and he was shocked to see such large dragonfly larvae.

Before it was over, they added riffle beetles, snails, scuds and damselflies. When he added up the score – three points for the best bugs, two for okay, one for least sensitive – he came up with 22, one shy of excellent.



*Steelhead rainbow trout fingerlings are released into the stream. (Photo by John Weiss)*

## Life lessons students will remember

Anthony Woxland helped net and release fish. TIC “was a pretty good idea,” he said. “This will give a good population boost.” It gave students responsibilities as well as teaching them “things are more sensitive than they seem, they are very finicky for temperature.”

Kensley Snyder said she fished trout when she was younger but has been busy with school. She likes TIC “because you increase the trout population.”

She’s learning mostly about water, “that you have to test the water and make sure the water is perfect so they can actually survive. And we learn how many naturally died, and what the odds are.” Streams in the area obviously are right for trout but she fears pollution could change that.

Snyder said she was surprised at how fast they grow. It had been only about five weeks. “I didn’t think they would hatch and get as big as they are right now.”

Jack Riddle also once tried trout fishing but gave it up. When he heard about TIC, “I was kind of surprised because we’ve never done it before, but I thought it was cool, it’s just another thing to do in the classroom . . . (it’s) more hands on, you can do stuff with the fish every day.”

It’s exciting to see the trout grow, Riddle said. He has been learning about pH, bacteria, how much wildlife is in the water and hydrogen bonds. He said he sneaks a peek at them now and then to see how they are growing.



*Dragonfly larvae found during the students’ research on Rush Creek. (Photo by John Weiss)*

Cayden Lea, unlike other students, is an avid trout angler, often with his grandparents Steve and Linda Lea.

“I love it, it’s fun coming out with them and spending time with them. I caught some super nice ones,” Lea said. He especially likes fishing in the evening around sunset. “I like catching (the) fish and being able to see the outdoors.”

As for TIC, he’s learned more about those trout he seeks, and catches. They grow fast, they like certain foods, need the right temperature and he appreciates “how delicate they are and how we have to protect them.” He’s amazed they can live as well as they do.



On May 2, Kramer looked over the tank and realized Scolly was missing. He asked students, but none knew. Scolly was a small trout, probably with something like scoliosis and was bent. And Scolly was smaller, making it a good target for bigger, stronger trout.

“He’s probably been eaten by now. Haven’t seen him in a long time, he’s been eaten because people check every day,” Kramer said. “They can be cannibalistic.” Trout do have hierarchies, he said.



*Students and adults gather around a table to catalog findings from stream research. (Photo by John Weiss)*

By contract, one trout on the surface was easily two and a half inches long. When they feed the fish, they sprinkle food on top but also send some down to smaller fish. So far, the tank had no die-offs, he said.

Elias Johnson was one of two students testing that day. He is also a trout angler and knows “we’ve got quite a bit of them (trout).”

The DNR does a lot of work, and many people come to fish the trout. Johnson said he knows you need good water quality to keep the fish alive.

TIC has increased his knowledge of the fish – knowledge that “is a little bit better because I have a better understanding of how they grow up.” He’s also learned that streams are home to stoneflies and cased caddis, part of a healthy ecosystem.

For some students, the end was a bit sad because they looked forward to seeing how the trout grew. "We got to interact with fish," said Hailey West. "I normally don't see fish."

The TIC program provides a truly unique learning opportunity for the students. And while this year's classroom cycle of trout eggs/fry/fingerlings/adults has ended, the students' curiosity carries on. For her part, in fact, West said she might even sneak into the classroom next year to check on the school's 2025-26 TIC trout program.

## Contributor

### John Weiss

*John Weiss was a full-time reporter for the Rochester Post-Bulletin for 41 years and wrote the Back Roads column for more than 10 years. His passions include hunting, fishing, birding, nature photography, hiking and just kicking around.*



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