State seeks to find and protect most sound streams

LINDY KEAST RODMAN/TIMES-DISPATCH

VCU graduate student Pete Sturke (left) and VCU biologist Dave Hopler collect fish samples to determine the health of Stony Creek in Sussex County as a part of the Healthy Waters Initiative.
Healthy waters

Scientists have found more than 200 healthy streams in Virginia, and the research is continuing. The best waters include:
Fauquier County: Mill Run
Fredericksburg: Claiborne Run
Hanover and Henrico counties: Chickahominy River
King and Queen County: Dragon Run
Loudoun County: Little River and Bull Run
Madison County: Popham Run
Prince William County: The South Fork of Quantico Creek
Rappahannock County: Hazel River
Richmond County: Totoskey Creek and the North Fork of Richardson Creek
Stafford County: White Oak Run
Sussex County: Stony Creek

Find healthy streams:

Use the Interactive Stream Assessment Resource, which lists and categorizes many Virginia streams, by going to: http://instar.vcu.edu.

Additional information
http://www.epa.gov/healthywatersheds

By Rex Springston
Published: November 30, 2009
» 4 Comments | Post a Comment

STONY CREEK A toothy, blood-sucking fish attached itself to Pete Sturke's hand the other day. And that was a good thing.

Sturke, a Virginia Commonwealth University graduate student, was checking the health of Stony Creek in Sussex County. The eel-like fish, a young sea lamprey, doesn't do well in dirty water, so its presence was welcome.

"From an ecological perspective, it's a wonderful sign," said Greg Garman, a VCU fish ecologist.
Garman, Sturke and VCU fisheries biologist Dave Hopler were investigating Stony Creek as part of Virginia's Healthy Waters Initiative, an effort to find and protect the state's most ecologically sound streams.

Polluted waters get more publicity, but protecting healthy streams makes practical and financial sense, experts say.

You don't want to allow a healthy stream to go bad "then have to turn around and spend 10 times as much to try and repair it," said Jack E. Frye, director of soil and water conservation for the state Department of Conservation and Recreation.

Over about the past five years, VCU scientists have evaluated more than 2,000 waterways by checking the state of their fish, insects, adjoining lands and other indicators. More recently, scientists from the state Department of Environmental Quality have made similar searches.

About 12 percent of those streams were healthy; about 30 percent were in such good shape they could be restored without a huge effort; and the rest -- more than half -- were in poor shape.

"It's not all gloom and doom," said Garman, director of VCU's Center for Environmental Studies. "There are still some gems out there."

Those in the best condition include the Chickahominy River in Hanover and Henrico counties, the South Fork of Quantico Creek in Prince William County, Claiborne Run in Fredericksburg and Stony Creek.

Healthy streams provide homes for fish and animals as well as places for people to fish, hunt, relax and bird watch.

The Healthy Waters Initiative, launched this fall, aims to continue the search for sound streams while encouraging local governments to protect them -- say, by maintaining natural lands that serve as buffers against pollution.

The U.S. Environmental Protection Agency is encouraging states to develop healthy-waters programs. About half have programs or are developing them.

"Virginia is showing great leadership" with its initiative, said Laura Gabanski, an EPA aquatic biologist.

Gauging the extent of water pollution in Virginia is tricky. For example, the DEQ lists more than 10,000 miles of streams as "impaired," or polluted.

Many of those streams are considered dirty because they are high in a pollutant, such as fecal bacteria, that poses a threat to people. Those streams, however, still can be ecologically sound, harboring healthy collections of animals and plants.

A perfect example is Dragon Run, east of Richmond on the Middle Peninsula. Lined by forests, the swampy stream looks pristine. Yet many of its fish contain mercury, most likely from air pollution, that can pose a health threat for people who eat the fish.

Dragon Run, therefore, ends up on both lists -- it is healthy ecologically but technically impaired by mercury.
"Saying a stream is on the impaired-waters list doesn't necessarily mean it's not a healthy stream," said Ellen Gilinsky, director of the DEQ's water division.

Protecting streams can save taxpayers money, experts say. For example, for every 10 percent increase in forestland around streams that provide drinking water, the cost of treating that water drops by 20 percent, according to federal officials.

On top of all that, healthy streams are beautiful. A good example is Stony Creek, a tree-lined, tea-colored stream that runs by a tiny community of the same name about 45 miles south of Richmond.

Hopler and Sturke checked the creek by catching and examining fish in it. They did that by sending an electric charge into the water from a plastic battery pack on Hopler's back. The charge temporarily stunned nearby fish, and the men netted them into a bucket.

Carefully prowling the creek in chest waders that insulated them from the charge, the men looked like a couple of aquatic ghost busters.

When the work was finished, Hopler identified each fish then returned it to the stream as Sturke logged the catch.

One of the fish was a cigarette-sized denizen called a northern hogsucker. It does not like pollution. "He's a good sign," Hopler said.

Another catch was a Roanoke bass, a pretty, palm-sized fish with iridescent blue-and-brown sides and bright-red eyes. It was also a good sign because it is rare, and rare fish usually don't do well in foul water.

"That's why they tend to be rare," Hopler said.

And, of course, there was the young lamprey, maybe 6 inches long and cartoonlike, with bug eyes. Besides being a beacon of good water, the lamprey brought another message.

Lampreys live in the ocean and breed in fresh water. So the presence of the lamprey here meant there was a clear path -- no dams -- between Stony Creek and the ocean. And that natural flow is a key indicator of a waterway's health.

Sturke, by the way, survived the lamprey encounter just fine.

"It kind of sucked on me," Sturke said, smiling, but "it hadn't started feeding."

Contact Rex Springston at (804) 649-6453 or rspringston@timesdispatch.com.

Share This:

Email My

Facebook
Reader Reactions

Voice your opinion by posting a comment.

Flag Comment Posted by Randy on December 01, 2009 at 11:26 am

Who is going to protect our jobs and families? Let’s keep on chasing jobs out of the US and protecting the environment for our impoverished kids who cannot get jobs. Great legacy to leave them. Nice to be selfish once you already have yours.

Flag Comment Posted by Scott Burger on November 30, 2009 at 5:03 pm

The local Sierra Club has had some GREAT canoe trips of Dragon Creek. The fact that is impaired by mercury should give us even more impetus to take on dirty coal.

Whether or not you believe in global warming (and I do believe), renewable energy is a way to help energy independence, public health, and restore ecosystem.

Flag Comment Posted by WaltW61 on November 30, 2009 at 3:23 pm

Conservation remains important. And those thinking about long-term recovery, know the enviroment will be a big winner in the conversion to biofuels & biopower—saw a cool site; Balkingpoints ; incredible satellite view of earth

Flag Comment Posted by Dinwiddie Boy on November 30, 2009 at 11:55 am

Good news and KUDOS for Dinwiddie County land and water use management practices since most of Stony Creek is in Dinwiddie County. The creek enters the Nottoway River (also the southern border of Dinwiddie County) just east of the town. The lamprey indicates good practices in both VA and NC since the system is in the Chowan Basin.
• Respect others.
• Use the "Flag Comment" link when necessary.
• See the Terms and Conditions for details.

Click here to post a comment.