

Photo by J.D. Samuel Louise Connelly, 13, of Wilmington Friends, accepts a cup of shad fry from Craig Shirey of the Delaware Department of Natural Resource and Environmental Control with fellow classmate Parthena Moisiadis, 14. The students were part of a ceremony where 5,000 American shad were released into the Brandywine Creek.

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## Indigenous shad restoration comes home

Dams will be removed to provide fish passage through the Brandywine watershed.

By J.D. SAMUEL

It's a dam situation and for three centuries local migratory fish have paid the price. The Brandywine Conservancy wants to change that.

Once tens of thousands of American shad flourished in the Brandywine and "the waters were boiling" with shad, said Zach Stevens, of the Brandywine Conservancy. During that time there were agreements with the Native American Lenni Lenape and the provisional government of Pennsylvania for certain sections of the Brandywine to be set aside for fish population protection, according to Stevens.

But when Europeans settled along the 325 square miles of the Brandywine watershed in Pennsylvania and Delaware, the American shad began disappearing.

"Because of the Brandywine's

dramatic drop in elevation, numerous mills flourished along its banks during the eighteenth, nineteenth and twentieth centuries. The mills required damns, which inadvertently reduced passage for spawning fish," said a Brandywine Conservancy press release.

Dams built along the Brandywine blocked the migration of shad from birth in fresh water streams and rivers, to the ocean where they lived for several years upon returning to native streams for spawning, according to the press release.

The Brandywine Conservancy launched a shad restoration project in 2003 to bring back shad and other migratory fish to the watershed.

On April 24 the conservancy held a press conference at the Hagley Museum and Library to celebrate the implementation of the project in Delaware, and begin plans for a feasibility study for shad restoration in Pennsylvania, according to officials.

During the event 5,000 baby sha were released into the banks of th

Brandywine Creek in Delaware.
The 5,000 juvenile shad, als known as "fry" and "fingerlings were two weeks old at the time o

their release.

"This is a terrific thing for th
Brandywine," said Bill Mentzer, representing Trout Unlimited o
Delaware. "This is such a wonderft

The first part of restoration projec focused on the Delaware section of the Brandywine watershed.

So far, two dams owned by th state of Delaware are planned to b removed, according to Rober Lonsdorf, senior planner for th Conservancy's Environmenta Management Center, during a tele phone interview.

In 2003 the National Fish an Wildlife Foundation, led by suppor

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Photo by J.D. Samuel From left, Robert Lonsdorf, senior planner for the Brandywine Conservancy's Environmental Management Center, releases juvenile shad into the Brandywine Creek with the assistance of Craig Shirey of the Delaware Department of Natural Resource and Environmental Control.

## Conservancy to restock the shad

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from the National Oceanic and Atmospheric Administration, awarded a grant to the Brandywine Conservancy to study the feasibility of bringing back shad and other fish to the Delaware portion of the Brandywine River, the release said.

The conservancy has built relationships with Delaware dam owners while partnering with a half dozen organization including DuPont and Natural Resource Conservation

To bring shad back, the restoration is split into two phases. Phase 1 is a feasibility study and phase 2 is the implementation of the study, which includes design and engineering components, said Stevens, the associate planner for the Brandywine Conservancy on Monday during a telephone interview.

With funding from NFWF, a feasibility study on dams in Pennsylvania to determine how to best restore migratory fish to the Pennsylvania portion of the Brandywine will begin this year, according to officials.

Part of the design planning includes several components, Stevens

said, such as the site conditions that determine hydrology and how water flows through the system. Also included is how the conditions of the stream influences how fish migrate up and down river and whether there is a dam or some kind of fish passage barrier.

But the real key in planning is matching the right fish passage option with the needs of the landscape and the needs of the landowner, he said.

According to a 2005 feasibility study, "engineering options such as fish ladders, rock ramps and partial or full removal of damns to provide fish passage" are tools for passage way restoration for the shad.

Historically, shad were an important food source for Native Americans and early European settlers, according to a press release. Further, "the spring shad run up the Schuylkill River is credited to helping to save Gen. George Washington's hungry troops at Valley Forge during the Revolutionary War."

For more information or to view the feasibility study for Delaware visit www.brandywineconservancy.org.

For Your Information from the Brandywine Conservancy Public Relations Dept. May 3-4, 2007