



PA's
Most
Mighty
Migratory
Fish

a SUCCESSFUL SHAD STORY



Shad fry

photo-Russ Gettig

UP



UP



UP



and



AWAY

The fish lift at Safe Harbor Dam began operation in 1997. This fish lift, like Conowingo Dam's lift, passes migrating fish directly into the pool above the dam.



Viewing window

At left, water from above the dam attracts fish into the fish lift. A gate closes and crowds the fish over a bucket, which lifts the fish, in water, and releases them into the channel at a level above the dam.

Safe Harbor Dam photos-Ted Walke

American Shad Timeline

(Susquehanna and Delaware Rivers) *continued*

1972

Construction of Conowingo fish lift completed.

1971-1974

124 million shad eggs transplanted.

1976

Susquehanna River Anadromous Fish Restoration Committee (SRAFRC) formed.

1972-1980

7 million shad fry stocked in Juniata River.

1980

Shad fishing closed on all Maryland waters of the Chesapeake Bay.

1981

750 American shad counted at Conowingo Dam.

1985-1994

150,000 adult shad released to spawn above dams on Susquehanna. 100,000 shad fry released into Susquehanna.

PA's Most Mighty Migratory Fish

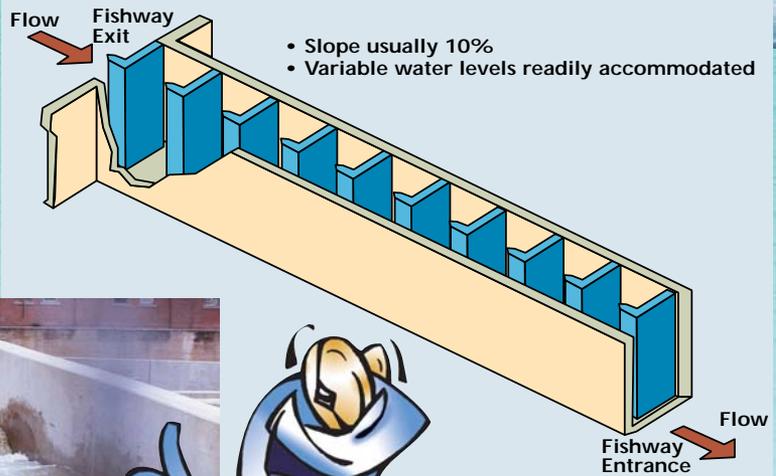
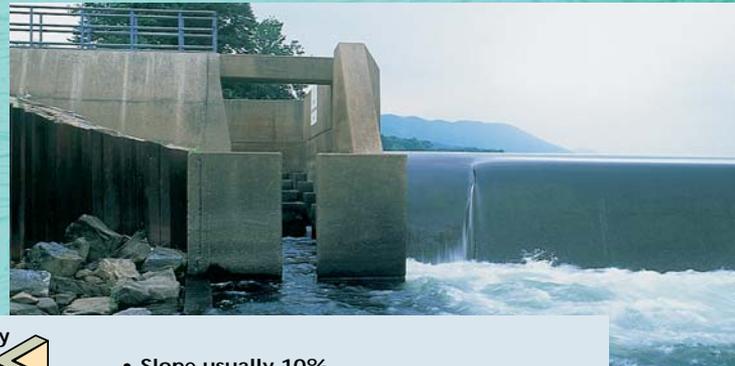


photo-Mike Hendricks

Fish & Boat Commission personnel release 21-day-old inch-long shad fry into the Juniata River at Millerstown, Perry County. The Commission raises 10 million to 20 million shad fry annually for stocking. Raising shad and stocking them above block-ages is currently a major part of restoration.

Regulations also require utilities (the dam owners) to provide fish passage at each dam that cannot be removed. These utilities have built fishways, elevators or lifts that help transport fish over the dam so they can continue their upstream migration. All four of the big hydroelectric dams on the lower Susquehanna River have fish elevators or lifts.

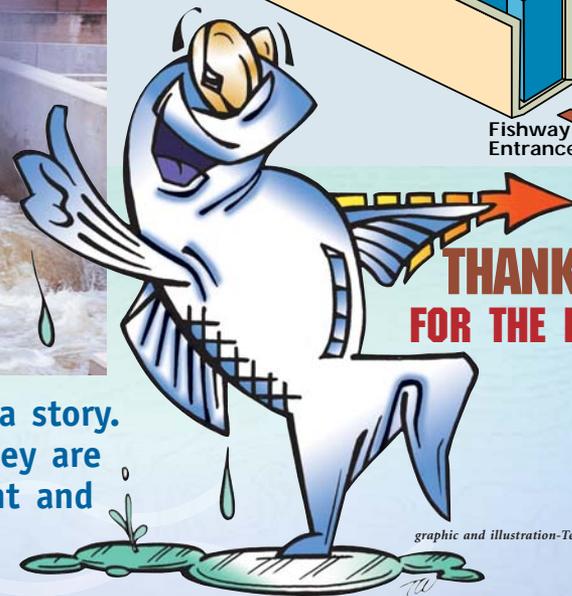
Finally, the Commission restocks fry and migrating adults to areas above the dams so that they can reach their spawning areas. The shad fry come from eggs that are taken from adult shad and raised in a hatchery.



Fishways constructed on barriers (see graphic) are called ladders. Migrating fish swim up the ladders at their own pace to reach upstream spawning habitat.



photo-U.S. Fish & Wildlife Service



graphic and illustration-Ted Walke

American shad have quite a story. Now you might agree that they are Pennsylvania's most important and interesting fishes.



1990
15,000 American shad counted at Conowingo Dam.

1995
Holtwood fish passage completed.

1997
Safe Harbor fish passage completed.

2000
York Haven fish passage completed.

2001
193,574 American shad counted at Conowingo dam, a new record!



2001
DCNR agrees to provide fish passage at inflatable dam in Sunbury.

2003
125,135 American shad counted at Conowingo dam.