

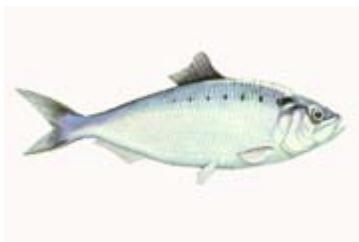
# Spanning the Gap

## Shad Run



U.S. Dept. of the Interior  
National Park Service

**Spanning the Gap**  
The newsletter of  
Delaware Water Gap National  
Recreation Area  
Vol. 11 No. 1 Spring 1989



Each year, the migratory spawning run of the American Shad is as much a sign of spring as the first green leaves on the trees. The *shad run* is a delight for the many

fishermen who flock to the river between mid-April and mid-June. It also represents a dramatic comeback for a species once nearly eliminated from the river.

The shad (*Alosa sapidissima*) is a flat, silvery, ocean-going fish, the largest member of the herring family. At maturity, it weighs three to six pounds. Like the salmon, it is an *anadromous* fish -- one that lives in the ocean but swims up freshwater rivers and streams to deposit its eggs.

Water temperature (50-55 degrees Fahrenheit) and water cleanliness seem to determine the time and extent of the shad run. Shad require plenty of dissolved oxygen in the water to breathe.

Before European settlement, the Lenape Indians caught shad during the spring run and used them to fertilize their corn. By 1900, however, pollution in the river, especially in the Philadelphia-Camden-Chester area, had all but ended the shad run.

Fortunately, the river was cleaned up to the point that in 1961, this native fish began to return in large numbers to the Delaware. Hundreds of thousands of shad now enter the Delaware River each spring.

(Left) *Alosa sapidissima*, the American Shad.



(Above) "Shad fever" on the Delaware



Fishermen value the challenge of catching shad. Its meat is white and very bony, and not much prized for eating, although the *roe*, (egg mass of the female) is considered tasty. Many fishermen return shad to the river after catching them.



(Above) Patience and its rewards. (NPS photos by Warren Bielenberg)



A fisherman seized with "shad fever" will need lightweight tackle, six-to-eight-pound test line, a net, and an ample supply of darts. A shore fisherman may use chest waders too.

Shad do not feed during their long journey upstream, so a juicy worm on a fish hook is unlikely to bring them in. A special lure called a *shad dart* is used to entice the fish to strike out of irritation, rather than hunger.

Casting the dart into the upstream edge of the channel and bounding it along the bottom may yield a strike. Then the struggle begins! It may take 25 or 30 minutes to land the fish, and many are lost because the soft membranes around the mouth tear easily.

Those shad which evade the fishermen and other hindrances continue north to spawn, laying a total of between 100,000 and 600,000 eggs. After spawning, most of the shad are totally spent. It is estimated that 90% of the spawning adults die, to wash up along the river's shore and decompose.

By September, the shallows teem with millions of shad fingerlings. Those that survive and reach the ocean will, in four years, return to spawn at their place of birth.

Aside from shad, the Delaware River provides excellent fishing throughout the year for smallmouth bass, walleye, muskellunge, catfish, carp, and panfish. Many lakes and streams located within the recreation area also contain trout, bass, and pickerel.

(Left) A shad tackle box. (NPS photo by Warren Bielenberg)



(Above) Cast, strike, and net: proper shad technique. (NPS photos by Warren Bielenberg)