

NO PROCESSED
CHEESE BAIT
ONLY BEIA!

SMART

Angler's Notebook

by Carl Richardson

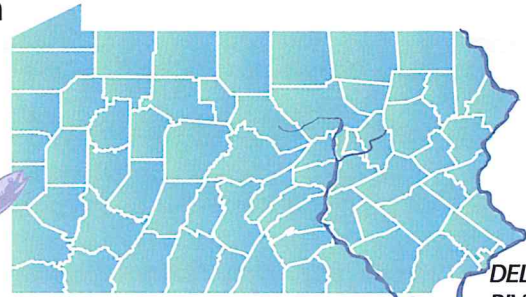
illustrated by Ted Walke



DIADROMY

No, it's not the Greek god of fishing. Diadromy might not be a Greek god, but it is from a Greek word, *dromos*—which means “running.” Fish that migrate between salt and fresh waters are called diadromous.

There are two kinds of diadromous fish found in Pennsylvania. They are anadromous and catadromous. The Susquehanna and Delaware rivers have runs of diadromous fish because they lead directly to salt water. The Delaware remains free of obstacles

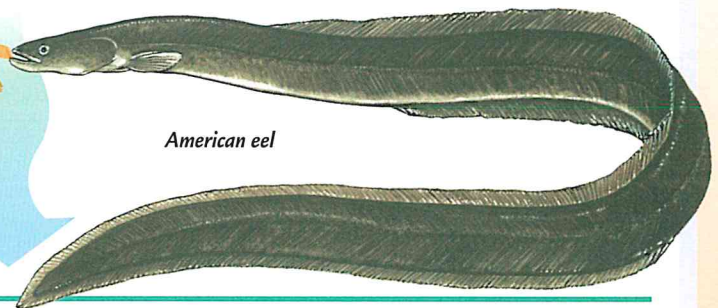


SUSQUEHANNA RIVER
DELAWARE RIVER

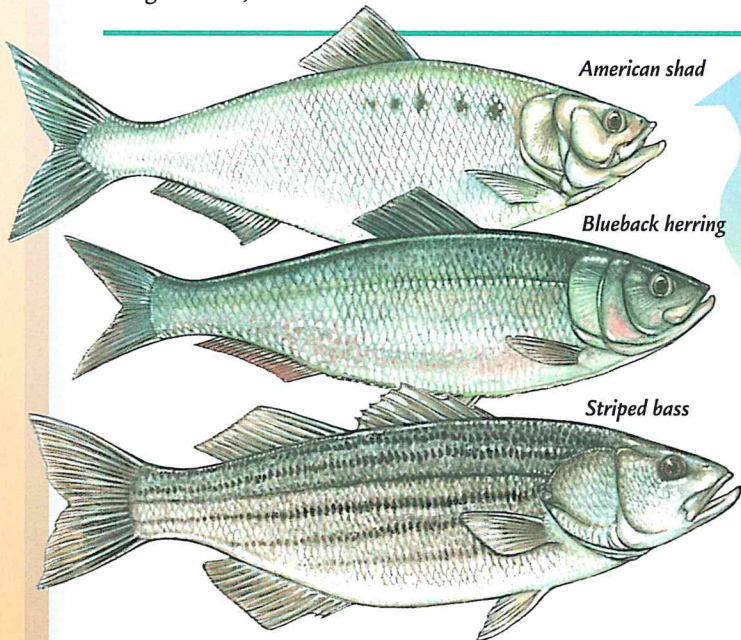
and migrating fish can move freely. However, dams on the Susquehanna are barriers to diadromous fish migrations. Soon, though, migrating fish will be provided safe passage at all the major barriers on the Susquehanna.

Catadromous fish

The Greek word for “down” is *cat*, so **catadromous fish must “run down.”** They run from fresh water to salt water to spawn. The American eel is catadromous. Eels are native to the Delaware and Susquehanna rivers. Only the female eel migrates up into the river system. The males remain in the estuary, or lower river. When mature, the females migrate down the river and join up with the males. Mature eels then make their way to the Sargasso Sea, an area in the Atlantic Ocean.



American eel



American shad

Blueback herring

Striped bass

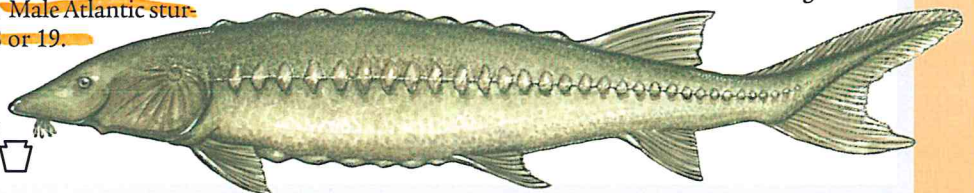
Anadromous fish

Anadromous fish run up. Anadromous fish found in Pennsylvania include American shad, herring, striped bass, and shortnose and Atlantic sturgeons. These fish also run both the Delaware and Susquehanna rivers.

After three to five years at sea, mature **American shad** return to fresh water. They make their spawning run in the spring, to the rivers where they were born. They spawn, and hang out in fresh water for a short period. Because they are adapted to eat the larger saltwater plankton, some starve to death. Some survive and return to the sea. **In the fall, as water temperatures drop, the young shad head to the ocean.** There they migrate up and down the coast each spring until they are three to five years old.

Striped bass mature in about two to four years. Mature stripers spawn in the lower reaches of the river systems. There, submerged grasses provide hiding places for the young stripers. After spawning, many adults migrate far up the river system. Anglers fishing the upper Delaware report catching stripers as far up as Port Jervis, New York.

Shortnose sturgeon



Not much is known about **sturgeon** and their habits. However, it takes many years for a sturgeon to mature. **Male Atlantic sturgeon mature at about age 12, females at 18 or 19.** They spawn just above the saltwater and freshwater line. The young sturgeon remain in fresh water until their second to sixth years. Then they migrate out to sea. ♪