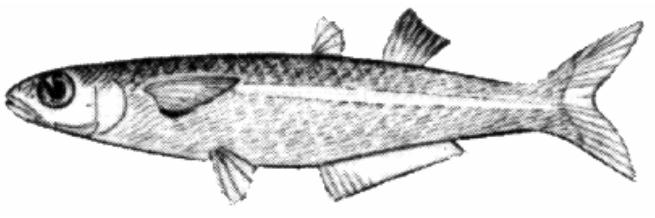
Atlantic Silverside *(Menidia menidia)*



The Atlantic Silverside, also called a spearing, shiner or minnow, is one of the New York/New Jersey Harbor Estuary's most common fish. It is an important source of food for the Estuary's bigger game fish including Bluefish, Atlantic mackerel and Striped Bass. It also provides food for egrets, terns, gulls, cormorants, blue crabs and smaller fish. Still other species, like the mummichog, prey on Atlantic Silverside eggs and larvae. Commercially, the Silverside is of minor value, mainly used as bait or to spot larger sport fish. When pursued by bigger fish the Silverside tries to escape by making little leaps out of the water. Unfortunately this attracts the attention of birds. Flocks of gulls hovering, diving and feeding usually indicate a school of bluefish or striped bass is below, chasing a school of Atlantic Silversides. The Silverside's main defense against being caught is to hide in bay grasses or to stay together in large schools. They are also quick swimmers with coloration that makes them tricky to see.

Atlantic Silversides are small, rarely exceeding 6 inches long. They have a short head, large eyes, a small, toothless mouth and a slender body with a rounded belly. The upper portion of their body is grey/green in color with a translucent to white underside. The Atlantic Silverside takes its name from the metallic silver band or stripe that runs along both sides of its body. Silversides eat small crustaceans, algae, annelid worms, zooplankton, copepods, amphipods, squid, shrimp, and insects.

Silversides breed from May to July in conjunction with specific moon cycles. During the full or new moon and the highest of the high tides, they gather in large schools to scatter their eggs along the sandy bottom of the Estuary. The eggs hatch about 5 to 20 days later depending on the temperature of the water (warmer water causes quicker hatching). Water temperature determines how many of the larvae will become male or female. Cooler water temperatures experienced by the larvae 32 to 46 days after hatching will result in more females with warmer water temperatures resulting in more males. When newly hatched, the larvae feed on other plankton and can be eaten by other species feeding on plankton. The lifespan for Atlantic Silversides is short--two years at best. Most die after they spawn at about one year old.

Atlantic Silversides can be found all along the Atlantic Coast of North America from the Gulf of the Saint Lawrence River to the northeast part of Florida. They prefer to live in brackish to full strength salt water and can adjust to changes in salinity. They are often found in dense schools close to shore looking for food. In the warmer months they can be caught easily by net in the shallow waters of our local bays and creeks. They do not last long out of water. As the water gets colder they will move out into deeper waters offshore since these waters stay at a constant temperature even during the coldest winter.

The Silverside is a common subject for scientific research because it is sensitive to extreme environmental conditions such as low oxygen levels, drastic temperature changes, and contaminants in water.

This entry was researched and written by Claire Antonucci, Rosemary Higgins and Cathy Yuhas of the New Jersey Marine Sciences Consortium/New Jersey Sea Grant Extension Program. It is part of a larger project, "The Key Species of New York/New Jersey Harbor Estuary" produced with funding from the New York/New Jersey Harbor Estuary Program.