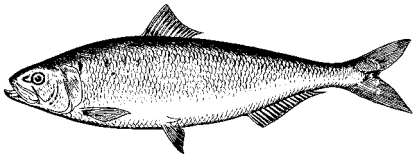
Alewife (*Alosa pseudoharengus*)

General Information

A schooling fish, primarily anadromous, inhabiting the ocean and many coastal/tidal river systems in NJ. Freshwater land-locked populations have been established in many lakes throughout the state and are often an important prey species for a variety of game fish. They are also commercially harvested and used as baitfish.



Native Range	Land-locked forms are located mostly in the NE United States. Their range extends from Nova Scotia to North Carolina and into the Great Lakes. (Bochenek 1981, Pardue 1983)

Habitat Description

Rivers: River populations are anadromous. Found in river systems during the spring spawning migration (April-June). Will utilize smaller streams for spawning than the closely related American shad.

Lakes: May occupy all strata of a land-locked waterbody during the course of the year. Primarily pelagic (open water), however, will move into littoral areas in late spring and summer to spawn and then return to deeper water. Have a preference for the warmer waters. Also move into shallow areas at night and return to deeper waters during the day. Move in large schools. Attracted to light.

Optimum Habitat Requirements

Dissolved Oxygen	
Temperature	11-19°C (adults) 17-19°C (young)
pH	
Turbidity	
Current	

Diet

Fry	zooplankton
Juveniles	insect larvae, zooplankton, some fish larvae
Adults	insect larvae, zooplankton,

Notes: Planktivores become more omnivorous with increase in size. Mainly filter feeders.

Growth

Age	1	2	3
Male (total length in mm)	95	127	135
Female (total length in mm)	102	128	142

Notes: Growth data from Lake Hopatcong, 1979-1980 (Bochenek 1981). Landlocked alewives have a shorter life expectancy and poorer growth rate than its anadromous counterparts. Females grow faster. Growth slows significantly after the onset of sexual maturity.

Reproduction

Time of Year	June	Age Males Mature	2 - 3
Temperature Range	10° - 26.7°C	Age Females Mature	2 - 3
Water Depth	150 - 300 mm	Nest	None
Substrate	Veg, sand, gravel	Egg Type	Non-adhesive
Time of Day	Night	Parental Care	None
Critical pH		Days to Hatching	4 - 6
Velocity Range	Not critical	Oxygen Level	critical

Notes: Females move into spawning areas (tributaries and shallow littoral zones) first. Will spawn in moderate currents if a more adequate spawning area is unavailable. Spawn in groups of two or three - each female deposits 60,000-100,000 eggs. Diet, growth and reproduction information taken from Brown 1972;Janssen 1976; Crowder 1983; Janssen 1978; Nigro 1982 and Bochenek 1981.