LBCCC

October 26, 2017

LOWER BUCKS COUNTY CHAMBER OF COMMERCE
ECONOMICS AND GOVERNMENT COMMITTEE

Chamber Mission: The Lower Bucks County Chamber of Commerce is organized to advance the principles of free enterprise by providing leadership to enhance the economic climate of the business community.

Committee Mission: Examine, promote and monitor governmental activity affecting business in Lower Bucks County and to encourage dialogue with elected officials, inform members and recommend action when necessary.

Chamber Resolution in Support of Legislation to Protect Forage Fish in U.S. Waters

WHEREAS, forage fish are small, schooling species, such as herring, menhaden, sardines and shad, that feed on plankton and play a critical role in the ocean ecosystem, and

WHEREAS, forage fish provide food for recreationally and commercially important species, such as striped bass, bluefish, weakfish and cod as well as for turtles, seabirds, sharks, and marine mammals like dolphins and whales, and

WHEREAS, river herring and shad, important forage fish found in the mid-Atlantic region, have declined by approximately 90 percent in coastal rivers and waterways throughout the U.S., and

WHEREAS, international and U.S. studies have found that seabird populations decreased when the amount of forage fish available to them fell below one-third of historic levels, and

WHEREAS, international and U.S. scientists have found that catching forage fish at high levels could have major adverse effects on some marine ecosystems, and

WHEREAS, demand for forage fish species, which are used for fertilizer, livestock feed, fish oil, and bait, is increasing worldwide, and

WHEREAS, many forage fish species, including river herring and shad, are not covered under a federal fishery management plan

NOW, THEREFORE, BE IT RESOLVED that the Lower Bucks County Chamber of Commerce encourages Congress to require regional fishery managers set ecologically sustainable limits on the amount of forage fish, including river herring and shad, that can be caught each year to ensure abundant food sources for valuable fish populations and other wildlife.

Table 2. (continued)

Species	Unit of measurement	Maximum value	Year of maximum	Minimum value	Year of minimum	Period of record	Location	Slope	R^2 of slope	Percentage increase or decrease or (fitted)	Long–term increase or decline	Reference
Western Atlantic												
Acipenser oxyrhinchus	Metric tons	3294	1888	6	1924	1880–1994	North America	–0.0239	0.28	–91.05	D	Kahnle et al. 2007
Alosa sapidissima	Metric tons	22,408	1814	18	1892	1814–2005	North America	–0.0189	0.67	–97.14	D	ASMFC 2007
Alosa pseudo-harengus	Metric tons	16,148	1958	7.5	2006	1950–2006	North America	–0.0829	0.86	–98.76	D	NOAA Fisheries statistics
Alosa aestivalis	Metric tons	23,800	1969	109.9	2006	1950–2006	North America	–0.0963	0.90	–99.39	D	NOAA Fisheries statistics
Alosa mediocris	Metric tons	303.8	1952	5.6	1990	1950–2006	North America	–0.0323	0.36	–81.95	D	NOAA Fisheries statistics
Anguilla rostrata	Metric tons	1792.6	1979	290.9	2002	1950–2006	North America	–0.0533 (*)	0.99	–72.20	D	NOAA Fisheries statistics
Osmerus mordax	Metric tons	163	1966	0.1	1997	1950–2004	North America	–0.0852	0.67	–99.08	D	NOAA Fisheries statistics
Salmo salar	Metric tons	2864	1967	132	2005	1960–2005	North America	–0.0736	0.82	–96.36	D	WGNAS 2006
Morone saxatilis	Metric tons	6704	1973	100	1989	1950–2006	North America	0.1635	0.85	+1,368	I	NOAA Fisheries statistics

D, decline; E, extirpated; I, increase.
Note: Slopes were calculated from normalized data that had been smoothed with running averages corresponding to generation times, and then log-transferred. Generation times: alosines, salmons, and brown trout, 4 years; smelt, 2 years; striped bass, 6 years; lampreys, 9 years; eels, 10 years; sturgeons, 15 years. Slopes with an asterisk (*) indicate that they were calculated after a clear peak or nadir (e.g., after a "fishing up" period or following a collapse and subsequent recovery). Percentage increase or decrease is calculated with the fitted slope, and include the most recent years in the time series. Type of record was catch for all species except *Alosa alosa* (fish passage), *Anguilla anguilla* (recruitment index), and lamprey (fishery).

Alewife = *Alosa pseudoharengus* 98.76% decline
Blueback herring = *Alosa aestivalis* 99.39% decline
American shad = *Alosa sapidissima* 97.14% decline
Hickory shad = *Alosa mediocris* 81.95% decline

Across the four species, the decline is about 90%. This number represents populations on the East Coast – not just mid-Atlantic.