

Data Summary of the Delaware River Seine Survey 2023



In 2023, biologists conducted the survey from June 19 to October 26, 2023. During those five months, crews hauled 287 individual seines catching 34,170 total fish, averaging 119 fish per haul. The five most abundant species caught were: bay anchovy, banded killifish, Atlantic menhaden, spottail shiner and Eastern silvery minnow.

In 2023, striped bass was the fourteenth most abundant fish caught. In total, 325 striped bass were caught and 232 of those were young-of-year (YOY) striped bass meaning that 71% of the striped bass caught were less than 1 year old. The YOY index (geometric mean) for 2023 was 0.26, which ranks thirty-eighth highest out of the 44-year time series.



All water quality parameters for 2023 were within normal range. Water temperatures ranged from 13.1 to 30.4 degrees Celsius. Dissolved oxygen levels ranged from 0.2 to 9.8 milligrams per liter. Salinity values ranged from 0 to 12.5 parts per thousand. pH values collected averaged 7.6, which is considered slightly more basic than neutral (7.0).

Catch totals by species for 2023 can be found below:

2023 CATCH TOTALS

COMMON NAME	SCIENTIFIC NAME	TOTAL NUMBER	FREQUENCY OF OCCURRENCE (%)
Alewife	Alosa pseudoharengus	18	2.439%
American Eel	Anguilla rostrata	24	7.317%
American Shad	Alosa sapidissima	1,092	39.721%
Atlantic Croaker	Micropogonias undulatus	445	16.725%
Atlantic Menhaden	Brevoortia tyrannus	3,384	22.648%
Atlantic Needlefish	Strongylura marina	5	1.394%
Atlantic Silverside	Menidia menidia	379	20.557%
Banded Killifish	Fundulus diaphanus	6,071	54.007%
Banded Sunfish	Enneacanthus obesus	1	0.348%
Bay Anchovy	Anchoa mitchilli	10,904	40.418%
Black Bullhead	Ameiurus melas	1	0.348%
Black Drum	Pogonias cromis	6	1.394%
Blackcheek Tonguefish	Symphurus plagiusa	1	0.348%
Blue Crab	Callinectes sapidus	301	25.087%
Blueback Herring	Alosa aestivalis	659	13.240%
Bluefish	Pomatomus saltatrix	33	8.362%
Bluegill Sunfish	Lepomis macrochirus	52	8.711%
Brown Bullhead	Ameiurus nebulosus	1	0.348%
Carp	Cyprinus carpio	8	1.742%
Channel Catfish	Ictalurus punctatus	36	5.923%
Comely Shiner	Notropis amoenus	6	0.697%
Crevalle Jack	Caranx hippos	4	1.045%
Eastern Silvery Minnow	Hybognathus regius	2,476	35.540%
Flathead Catfish	Pylodictis olivaris	1	0.348%
Gizzard Shad	Dorosoma cepedianum	239	19.861%
Golden Shiner	Notemigonus crysoleucas	3	1.045%
Goldfish	Carassius auratus	7	2.091%
Green Sunfish	Lepomis cyanellus	1	0.348%
Hogchoker	Trinectes maculatus	515	22.648%
Inland Silverside	Menidia beryllina	239	16.028%
Largemouth Bass	Micropterus salmoides	9	2.091%
Mummichog	Fundulus heteroclitus	1,344	29.965%
Northern Hog Sucker	Hypentelium nigricans	23	4.181%
Northern Snakehead	Channa argus	1	0.348%
Pumpkinseed Sunfish	Lepomis gibbosus	20	3.484%
Rainwater Killifish	Lucania parva	1	0.348%
Redbreast Sunfish	Lepomis auritus	4	0.697%
Rough Silverside	Membras martinica	179	9.059%
Smallmouth Bass	Micropterus dolomieu	28	6.969%
Spanish Mackerel	Scomberomorus maculatus	2	0.697%
Spot	Leiostomus xanthurus	136	13.240%
Spottail Shiner	Notropis hudsonius	3,318	38.328%
Striped Anchovy	Anchoa hepsetus	21	3.484%
Striped Bass	Morone saxatilis	325	31.010%
Striped Killifish	Fundulus majalis	2	0.697%
Summer Flounder	Paralichthys dentatus	4	1.045%
Tessellated Darter	Etheostoma olmstedii	769	33.101%
Walleye	Sander vitreus	2	0.348%
Weakfish	Cynoscion regalis	6	0.348%
White Catfish	Ameiurus catus	3	1.045%
White Perch	Morone americana	987	49.826%
White Sucker	Catostomus commersonii	60	6.272%
Yellow Bullhead	Ameiurus natalis	6	0.348%
Yellow Perch	Perca flavescens	8	1.394%
GRAND TOTAL		34,170	