

# A Day in the Life of the Hudson and Harbor 2022: Fishing

2022 was the 20<sup>th</sup> annual Day in the Life of the Hudson and Harbor! Over 80 sites were sampled by over 4,000 participants. The table below shows some of the fish caught. Students pull a seine net (left), and show an oyster toadfish caught at Pier 45 (right).



Hudson River Mile	Site	Atlantic menhaden	Spottail shiner	Oyster toadfish	Banded killifish	Atlantic silverside	Striped bass
134.5	Schodack Island		15		23		1
97	Ulster Landing Park		11				3
87	Esopus Meadows				4		4
75.5	Poughkeepsie	1			17		
60.5	Newburgh		12			22	1
25.4	Piermont Pier	4				253	5
18.3	CURB, Yonkers					59	3
0.6	Hoboken Cove, NJ			1		3	
Harlem River	Randall's Island Park	29				121	3
East River	Brooklyn Bridge Park	148				131	

Answer the questions based on the table above:

1) Which species was caught in the most places (on this list) on October 13, 2022? **Striped bass**

2) In the Hudson River Estuary, the water near the ocean is salty, while further upriver it is fresh. The leading edge of salty water is called the salt front. Atlantic silversides can be found pushing right up to the edge of the salt front. Based on the northernmost site listed here with Atlantic silversides, where would you estimate the location of the salt front on October 13th?

**North of River Mile 60.5 (Newburgh)**

3) Based on the location of the salt front, which of the listed fish species are found mainly in saltwater? **Atlantic silversides, oyster toadfish, Atlantic menhaden are on the edge**

4) Which species are found mainly in freshwater? **Spottail shiner and banded killifish**

5) Which species is likely to be found throughout the whole estuary, in both fresh and salty water? **Striped bass, which is a migratory fish that spawns in freshwater, spends some time in the estuary when they are young, and then head to the ocean to feed and grow.**

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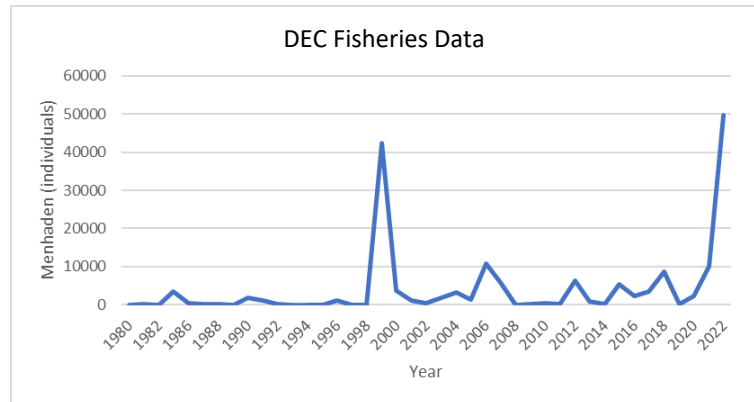
Atlantic menhaden caught on Day in the Life each year at all sites



**How does the number of total Atlantic menhaden caught on Day in the Life in 2022 compare to previous years?**

**This year we noticed that many sites caught a lot of Atlantic menhaden, and that they were showing up in nets further upriver than we typically see them.**

Atlantic menhaden are a type of herring that live in coastal waters and estuaries from Florida to Canada. They can be found in salt, brackish, and freshwater, but are typically more abundant in salty waters. The Department of Environmental Conservation's Hudson River Fisheries Unit annually seine for fish. Just like students on Day in the Life, they also found that 2022 had the highest catches of menhaden since 1980 (graph to the right).



**What factors could impact the number of Atlantic menhaden found in the Hudson River and New York Harbor?**

**Students can have an open discussion about what they think, here are some topics you can bring up as well:**

**Population increase:** There may have been high spawning success for the adults this past season, resulting in higher numbers of young fish being found in our nets.

**Behavior:** Menhaden are a schooling fish, so if you happen to catch a school of them in one seine haul, it can greatly increase your numbers overall.

**Salinity:** The salt front was north at Poughkeepsie this year, and the dry conditions may have moved their range more north than typical.

**Why do you think scientists care about the number of menhaden?** (Here are some websites for more information about this fish: [NOAA](https://www.noaa.gov), [ASMFC](https://www.asmfc.org), [Chesapeake Bay](https://www.chesapeakebay.net))

**They play a key role in the food web, they are filter feeders and an important food source for larger fish and other aquatic predators, even whales! There is also a commercial fishery for menhaden, they are used for fish oil supplements, animal feed, fertilizer, and bait.**