

Delaware Estuary

Delaware and Philadelphia Counties

2011 Striped Bass Spawning Stock Assessment

The Pennsylvania Fish and Boat Commission assessed the striped bass spawning stock in the tidal Delaware River between May 12 and May 26, 2011. Striped bass were sampled at 21 index sites ranging from the mouth of Rancocas Creek, NJ (near river mile 109) downriver to the mouth of Raccoon Creek, NJ (near river mile 80). Each index site was sampled twice using an electrofishing boat.

A total of 336 striped bass were collected in 2011. Males comprised 74% of the total catch and ranged in size from 7 to 37 inches. Females comprised 10% of the total catch and ranged in size from 21 to 42 inches. Sex was unknown for 16% of the striped bass collected (see Table 1).

Table 1. Length and frequency distribution of striped bass collected.

Sex	Number collected	Size range (inches)
Male	249	7 - 37
Female	34	21 - 42
Unknown	53	4 - 26

In 2011, the averages for total catch, catch of striped bass ≥ 12 inches, and catch of striped bass ≥ 28 inches were similar to the long-term averages observed from 1996 to 2010. The 2011 catch rates were:

- Total catch = 17.91 fish / hour
- Striped bass ≥ 12 inches = 12.85 fish / hour
- Striped bass ≥ 28 inches = 2.05 fish / hour
- Slot size striped bass (20 to 26 inches) = 4.29 fish / hour

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Area 6 Fisheries Manager Mike Kaufmann with a large striped bass captured in the tidal Delaware River

The average catch rate for striped bass ≤ 28 inches has exhibited a statistically significant decreasing trend for the 21 index sites from 1996 to 2011, while the average catch rate for striped bass ≥ 28 inches has remained similar.

Despite the declining catch rate for striped bass ≤ 28 inches, anglers reported excellent catches of striped bass from the tidal Delaware River in 2011. At the peak of the spawning period, the average catch rate among one group of anglers was reported to be 3 to 4 fish / hour. Most fish caught ranged in size from 18 to 26 inches with several fish up to 33 inches. Other anglers reported fish up to 42 inches being caught. Typical baits

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include blood worms, cut herring or other fish, live-lined fish, and raw clams. Lures may also be productive.

The majority of striped bass captured in 2011 were tagged with pink U.S. Fish and Wildlife Service reward tags as shown in the photo below. The information gathered from tag returns allows biologists to monitor movement, determine where fish are harvested, estimate annual fishing mortality, and document angler release rates.



Note the three inch pink spaghetti-like tag near the tip of the pectoral fin. Report reward tags to the U.S. Fish & Wildlife Service by calling 1-800-448-8322.

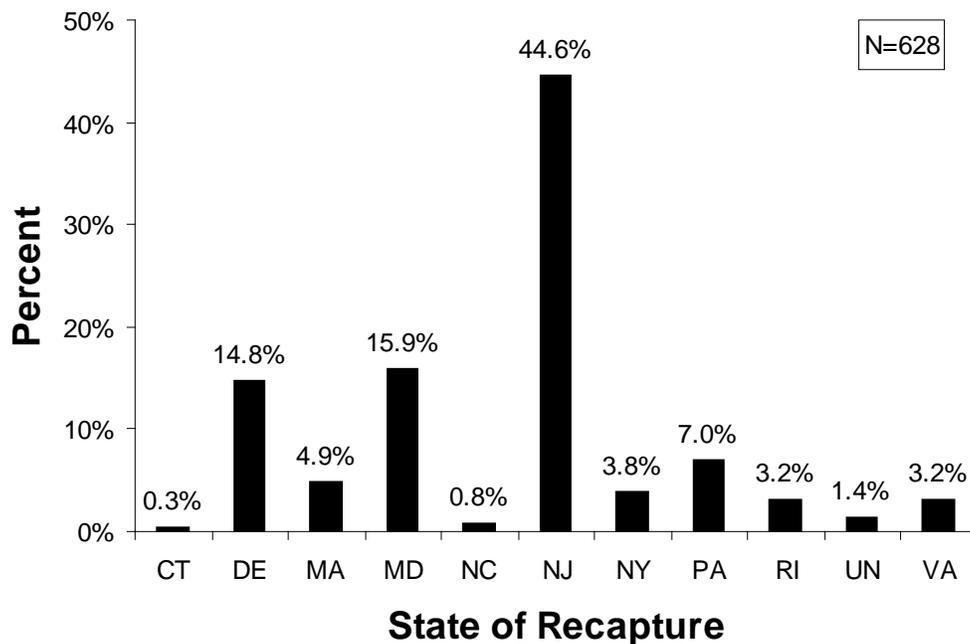
Between 1995 and 2010, the Pennsylvania Fish and Boat Commission tagged a total of 3,349 striped bass in the Delaware River and tidal Schuylkill River. As of December 31, 2010, 19% of the 3,349 tags were returned. Recreational anglers accounted for 89% of the tag returns, while commercial fishermen accounted for 8%. Reporting rates have

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probably varied among these groups. Three percent of the returned tags were credited to other collections, such as scientific research.

Tags returns have been reported from anglers fishing waters ranging from North Carolina to Massachusetts. Since 1995, approximately 76% of the tagged striped bass have been caught in New Jersey (45%), Maryland (16%), and Delaware (15%), while the remaining 24% of the tagged striped bass have been caught in Pennsylvania (7%), Massachusetts (5%), New York (4%), Virginia (3%), Rhode Island (3%), North Carolina (1%), and Connecticut (<1%) (see Figure 1). Fifty percent of the captured tagged fish have been released; 49% have been harvested; and 1% have been found dead, dying, or have been used for scientific research. Recreational and commercial fishermen have harvested 48% and 78% of their striped bass catches, respectively.

Figure 1. Percent tag returns by state for striped bass tagged by the Pennsylvania Fish and Boat Commission during spawning stock assessments in the Delaware Estuary from 1995 to 2010. Unknown recapture location = UN.



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If you plan to fish for striped bass in the Delaware Estuary, it is recommended that you review the [Pennsylvania Summary of Fishing Regulations and Laws for the Delaware River and Estuary](#) since striped bass fishing in the Delaware River is regulated differently than striped bass fishing in inland Pennsylvania waters and all New Jersey waters, including the Delaware River and Estuary. The regulations in the Delaware River also vary by location (tidal vs. non-tidal) and month. Anglers consuming striped bass are also advised to consult the [rear of the summary booklet for the health advisory](#) related to these fish.

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