

Delaware River

Bucks County

2021 Adult Smallmouth Bass Evaluation

Fisheries biologists from the Area 6 office of the Pennsylvania Fish and Boat Commission (PFBC) routinely assess the status of the Delaware River Smallmouth Bass population. In October 2021, PFBC biologists conducted an evaluation of the adult Smallmouth Bass population in the lower Delaware River. Sampling is conducted annually using nighttime boat electrofishing at three historical sites, Upper Black Eddy, Point Pleasant, and Yardley. However, only the Upper Black Eddy and Point Pleasant sites were sampled in 2021 due to high river flow conditions during fall. Although only two sites were sampled, the observations made during this survey were notable and are detailed below.



Area 6 Fisheries Biologist Tyler Grabowski displaying an 18.5 in Smallmouth Bass captured at Upper Black Eddy during October 2021.



Area 6 Fisheries Manager Mike Porta with a 20 in Smallmouth Bass captured at Point Pleasant during October 2021.

Nighttime boat electrofishing surveys for Smallmouth Bass target shoreline habitats such as large boulders, shale outcroppings, woody debris, and vegetation beds. All Smallmouth Bass encountered during these surveys are collected and processed for total length, weight, and a scale sample is taken to estimate the age of the fish. During the 2021 survey, a total of 105 Smallmouth Bass ranging from 4 to 20+ in were captured between the two sites (47 at Upper Black Eddy and 58 at Point Pleasant; Figure 1).

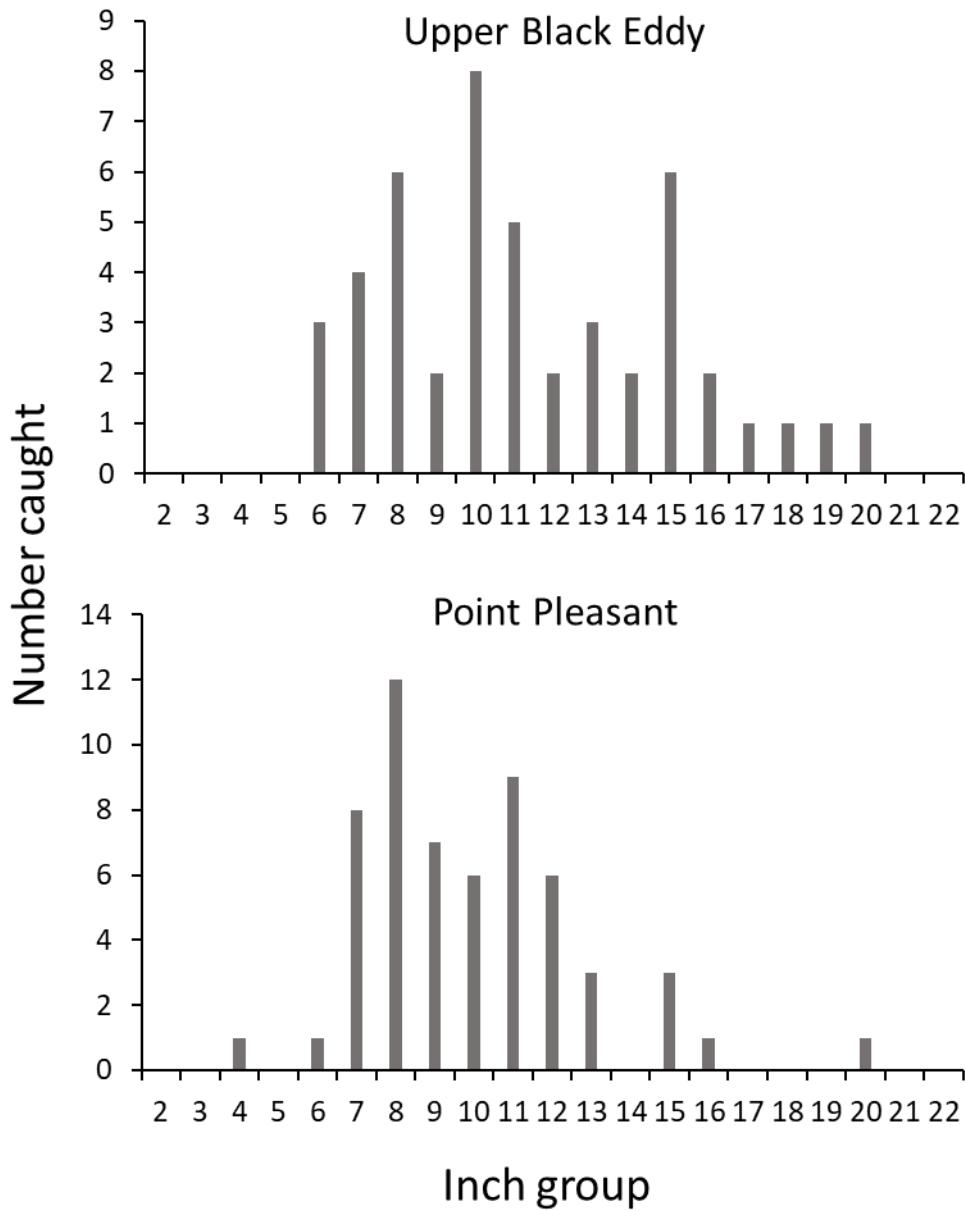


Figure 1. Length frequency distribution of Smallmouth Bass captured from the lower Delaware River during October 2021.

The overall catch rates were average (Upper Black Eddy; Figure 2) or above average (Point Pleasant; Figure 3), depending on the site. However, catch rates of fish exceeding 12 in and 15 in were above the long-term average at both sites. The catch rate of fish over 15 in was the highest on record for the times series at each site. Two Smallmouth Bass exceeding 20 inches were captured during this survey, which doubles the number captured over the time series, which was initiated in 1989.

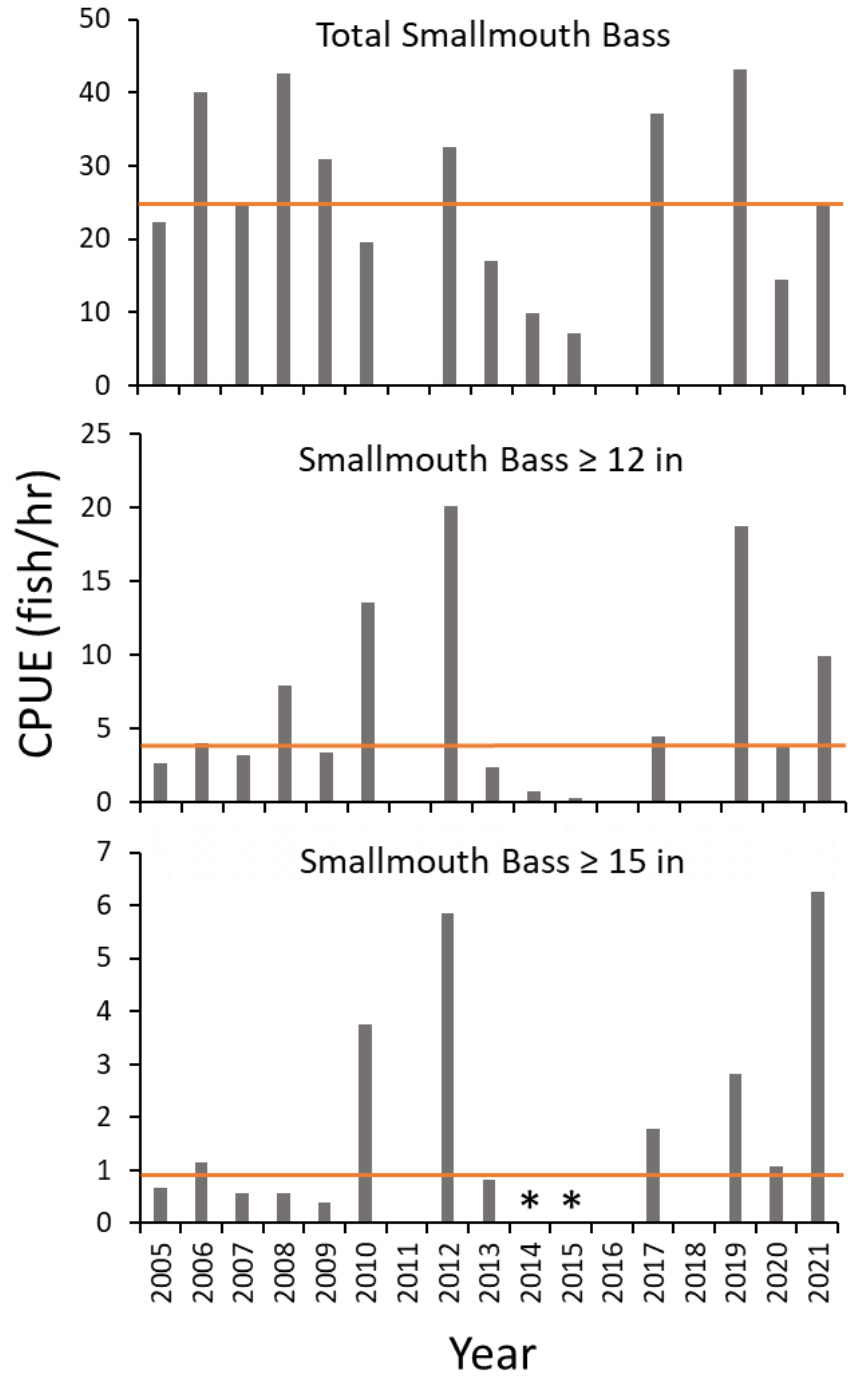


Figure 2. Catch-per-unit-effort (CPUE; fish/hr) of Smallmouth Bass captured during night electrofishing surveys at the Upper Black Eddy site on the Delaware River from 2005 – 2021. Orange line indicates the long-term median. Asterisks indicate years when sampling was conducted but no fish were captured.

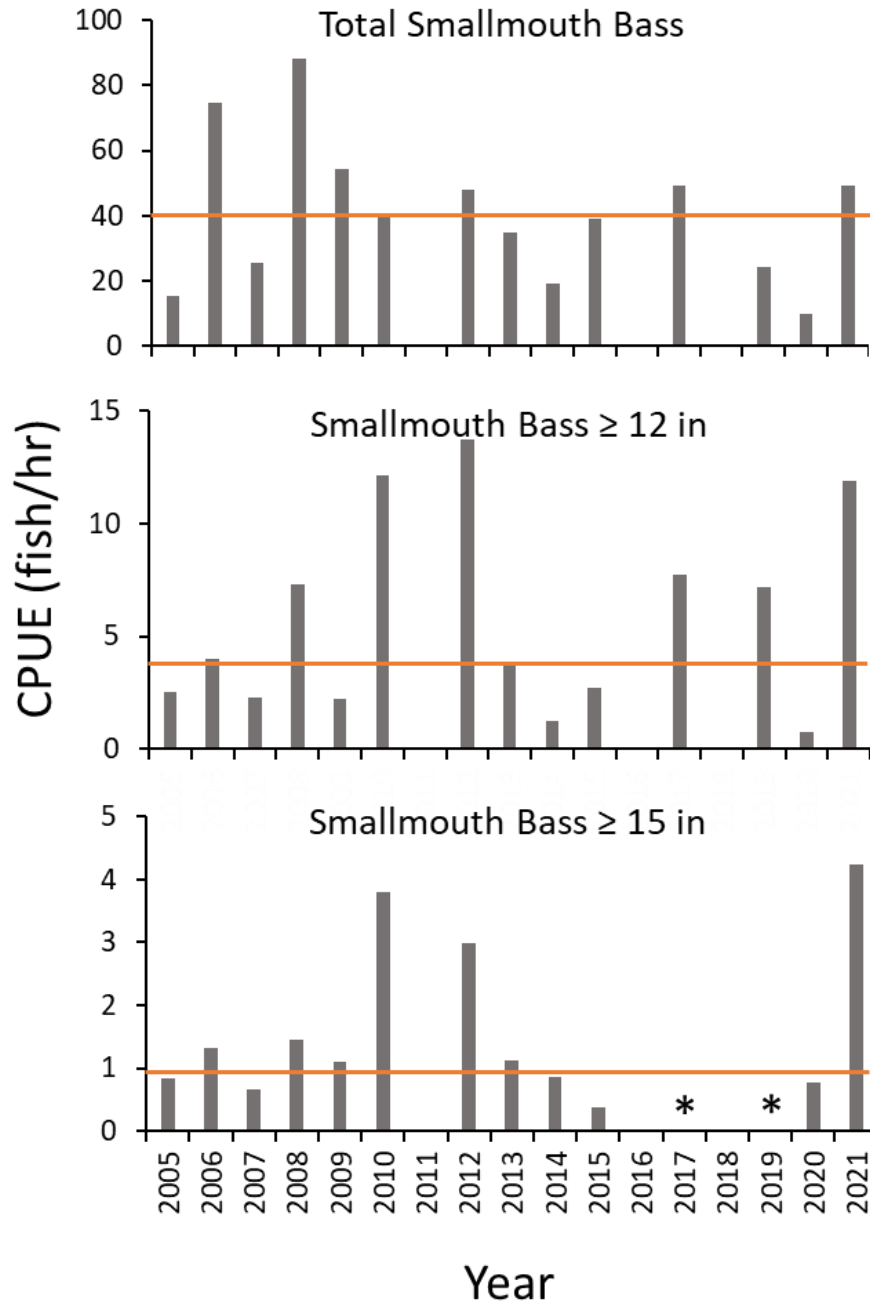


Figure 3. Catch-per-unit-effort (CPUE; fish/hr) of Smallmouth Bass captured during night electrofishing surveys at the Point Pleasant site on the Delaware River from 2005 – 2021. Orange line indicates the long-term median. Asterisks indicate years when sampling was conducted but no fish were captured.

Pennsylvania Fish and Boat Commission Biologist Report

These results suggest that anglers currently have tremendous angling opportunities on the lower Delaware River, with a chance for a Smallmouth Bass of a lifetime. The observations of higher than median catch rates of adult Smallmouth Bass and presence of smaller fish that will grow to catchable size in the coming years, suggests that fishing for Smallmouth Bass in the Delaware River should remain good. Delaware River Smallmouth Bass anglers should follow creel and size limits, and seasons found in the [2022 Summary Book](#).

Mike Porta, Area 6 Fisheries Manager

Tyler Grabowski, Area 6 Fisheries Biologist