

Historic catch rates of adult smallmouth bass at the West Branch Susquehanna and Susquehanna rivers



Figure 1. Area 7 fisheries biologist John Frederick with a smallmouth bass from the middle Susquehanna River near Highspire, PA. (photo: PFBC)

Introduction

Adult smallmouth bass have been sampled annually since 1990 by the Division of Fisheries Management in the major rivers and streams of the Commonwealth as index of the catchable smallmouth bass population. This index is then used to gain insight about overall population dynamics of smallmouth bass including the distribution of the different age and size classes. Survey sites are near popular access points so that data is reliable to what the average angler might encounter.

Since 2005, poor hydrologic conditions following the spawn (2006 and 2009) and disease incidence (2005, 2007, and 2008) have led to five consecutive year classes with below average reproductive success in the middle and lower Susquehanna River and to a lesser extent on the West Branch Susquehanna and upper Susquehanna rivers. It appears that years of repeated poor recruitment have led to a decrease in the overall population of the middle Susquehanna River; however, numbers of quality fish (> 15 inches) have remained at or above historic averages (figure 3). The West Branch Susquehanna River has not appeared to have been affected as negatively by these conditions (figure 2.) Catch rates of legal-length and trophy-length smallmouth bass have been near or above average in recent years (figures 4 and 5, respectively).

Overall, the West Branch Susquehanna River is still recovering from a legacy of pollution. The lower reaches, although markedly improved from the recent past, have likely not yet met their full potential.

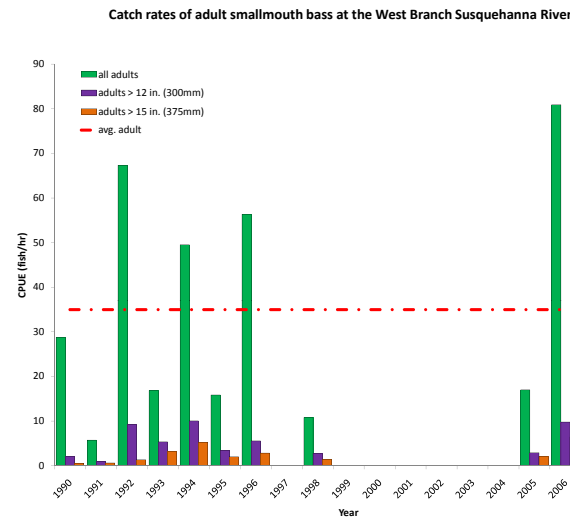


Figure 2. Historic catch rates of adult smallmouth bass at the West Branch Susquehanna River. Blank values indicate years when no surveys were conducted, not zero values.



Figure 3. Area 3 Fisheries Manager Jason Detar with a 18 in., 4 lbs. smallmouth bass from the West Branch Susquehanna River.

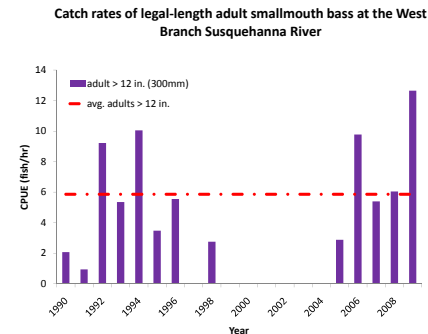


Figure 4. Historic catch rate of legal-length (> 12 in., 300mm) at the West Branch Susquehanna River. Blank values indicate years when no surveys were conducted, not zero values.

Catch rates of adult smallmouth bass at the middle Susquehanna River

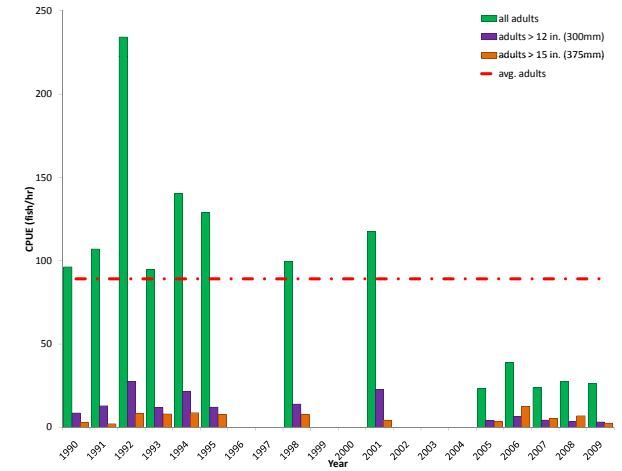


Figure 3. Historic catch rates of adult smallmouth bass at the Susquehanna River between Sunbury and York Haven Dam. Blank values indicate years when no surveys were conducted, not zero values. Note differences in scale between graphics.

Catch rates of trophy-length adult smallmouth bass at the West Branch Susquehanna River

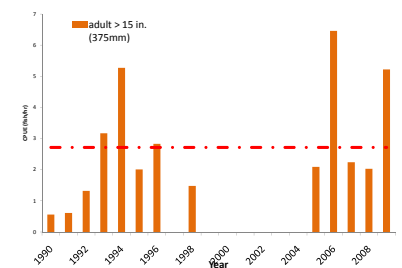


Figure 5. Historic catch rate of trophy-length (> 15 in., 375mm) at the West Branch Susquehanna River. Blank values indicate years when no surveys were conducted, not zero values.

