

Bushkill Creek, Northampton County
Section 06
Catch-and-Release Area Update for 2016

Fisheries Management staff from Areas 4, 5, and 6, as well as from the Coldwater Unit conducted an electrofishing survey to quantify wild Brown Trout abundance and biomass in the [Catch-and-Release Area](#) of Bushkill Creek on July 25 and 26, 2016. Prior to this assessment a decline in the Brown Trout population was reported in the [2012 Bushkill Creek C&R web report](#).



Fish sampling crew

The Brown Trout population returned to Class A status with an estimated biomass of 52.98 kg/ha in 2016. This represented a 59 percent increase over the previous 2012 estimate of 33.35 kg/ha (Figure 1). Overall, the population has regularly met the 40 kg/ha standard for Class A wild Brown Trout management, although two exceptions (1989 & 2012) had occurred since monitoring began (Figure 1).

For anglers the fishery supported more legal and larger size Brown Trout in 2016 than in 2012. For example, the actual number of Brown Trout captured between 7 and 13.9 inches was 53 trout in 2016 compared to 31 trout in 2012, which represented a 71 percent increase for this segment of the adult population. This catch resulted in a corresponding increase in the estimated

number of trout per mile from 209 in 2012 to 451 in 2016 (Figure 2). For Brown Trout larger than 350 mm (\geq 14 inches) the number caught was the same (N=7) as in 2012. However, length frequency of the 2016 catch showed more trophy size individuals present with four Brown Trout measured to be 18, 19, 20, and 22 inches long. The 2016 catch produced an estimated abundance of 43 fish/mile being \geq 14 inches in total length, which was similar to the 2012 estimate (Figure 3).



22 inch Brown Trout held by student intern

In addition, the Brown Trout estimate of 1,944/mile for fish less than 175 mm (7 inches) ranked 6th highest for the time-series and represented above average (Mean = 1,271/mile) reproductive success and recruitment for the 2016 year class. Brown Trout management will continue for this reach of Bushkill Creek under Catch-and-Release regulations.

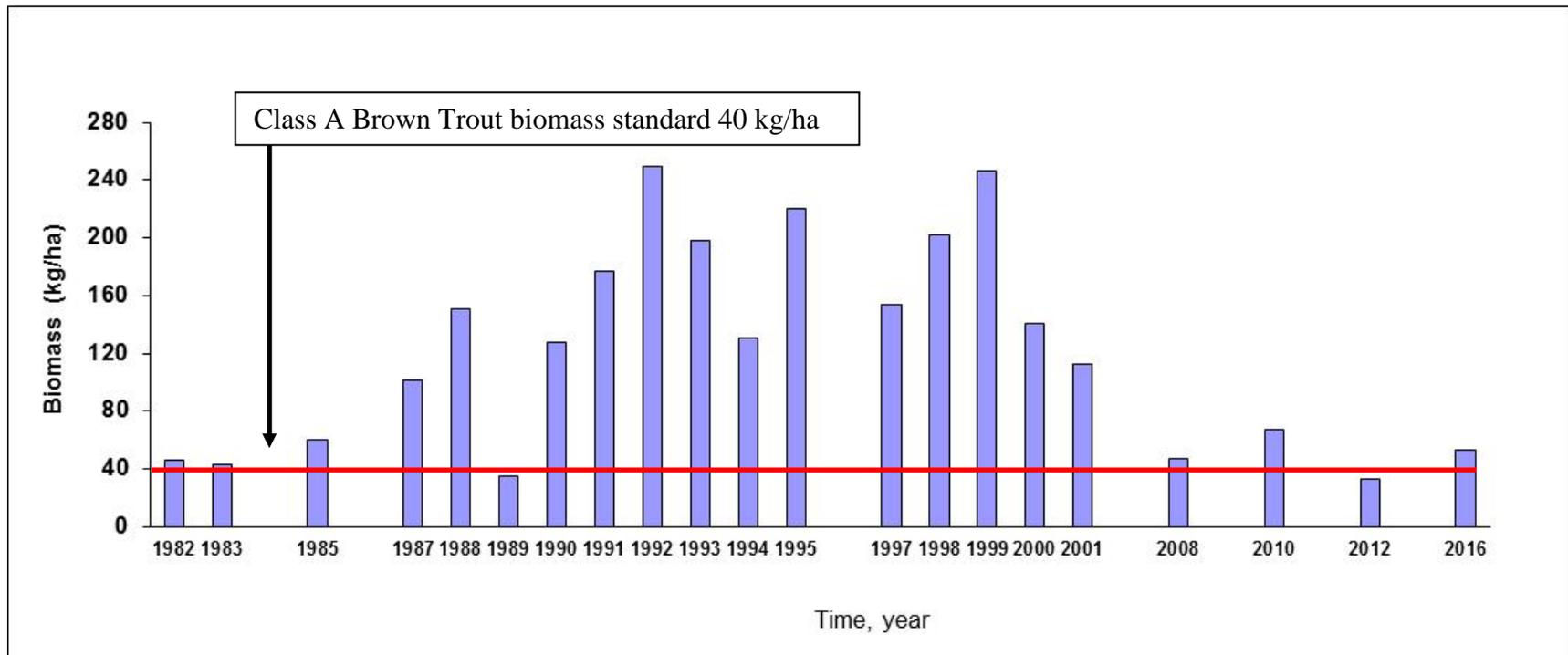


Figure 1. Time series of Brown Trout biomass estimates for Section 06 of Bushkill Creek from 1982 through 2016. Population assessments were not performed in 1984, 1986, 1996, from 2002 through 2007, 2009, 2011, and 2013 through 2015, which are noted on the X-axis as being unlisted or blank spaces between years listed.

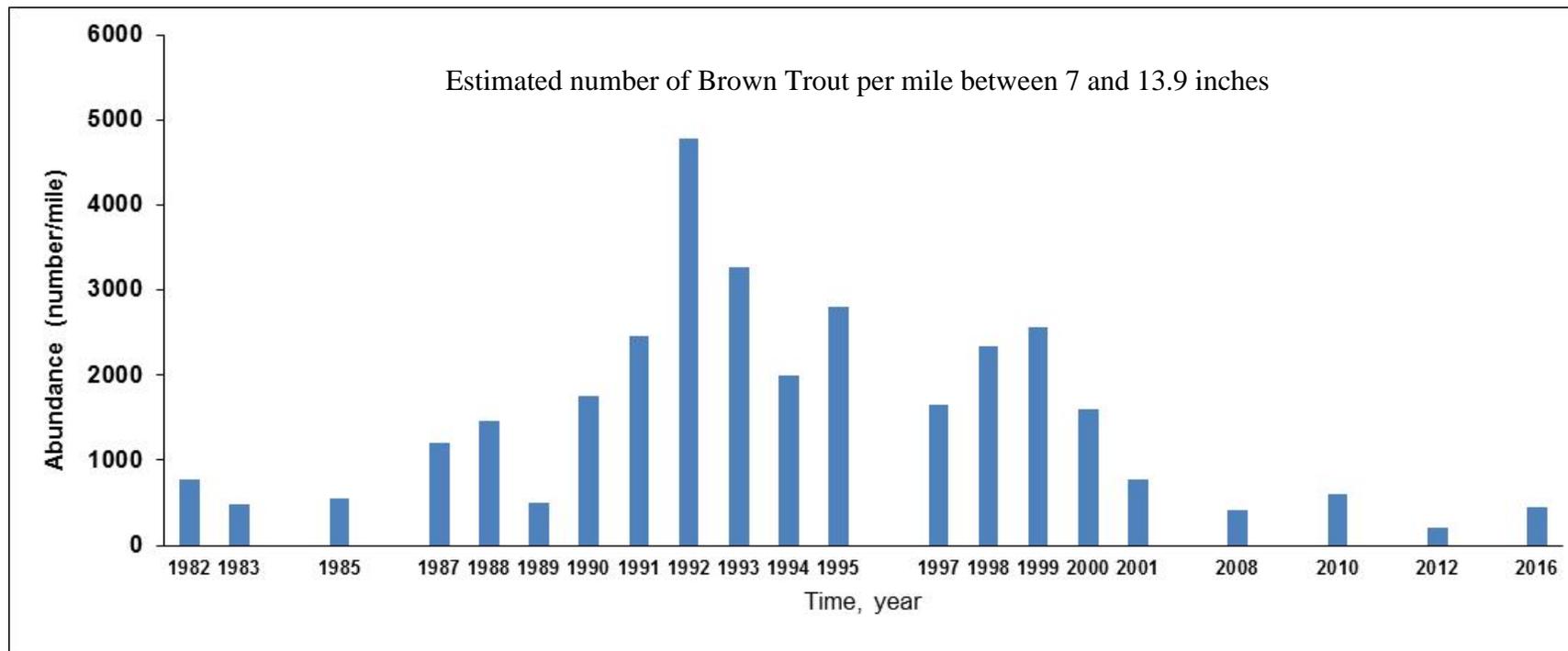


Figure 2. Comparison of the estimated number of Brown Trout per mile in the 7 to 13.9 inch size range for Section 06 of Bushkill Creek from 1982 through 2016. Population assessments were not performed in 1984, 1986, 1996, from 2002 through 2007, 2009, 2011, and 2013 through 2015, which are noted on the X-axis as being unlisted years.

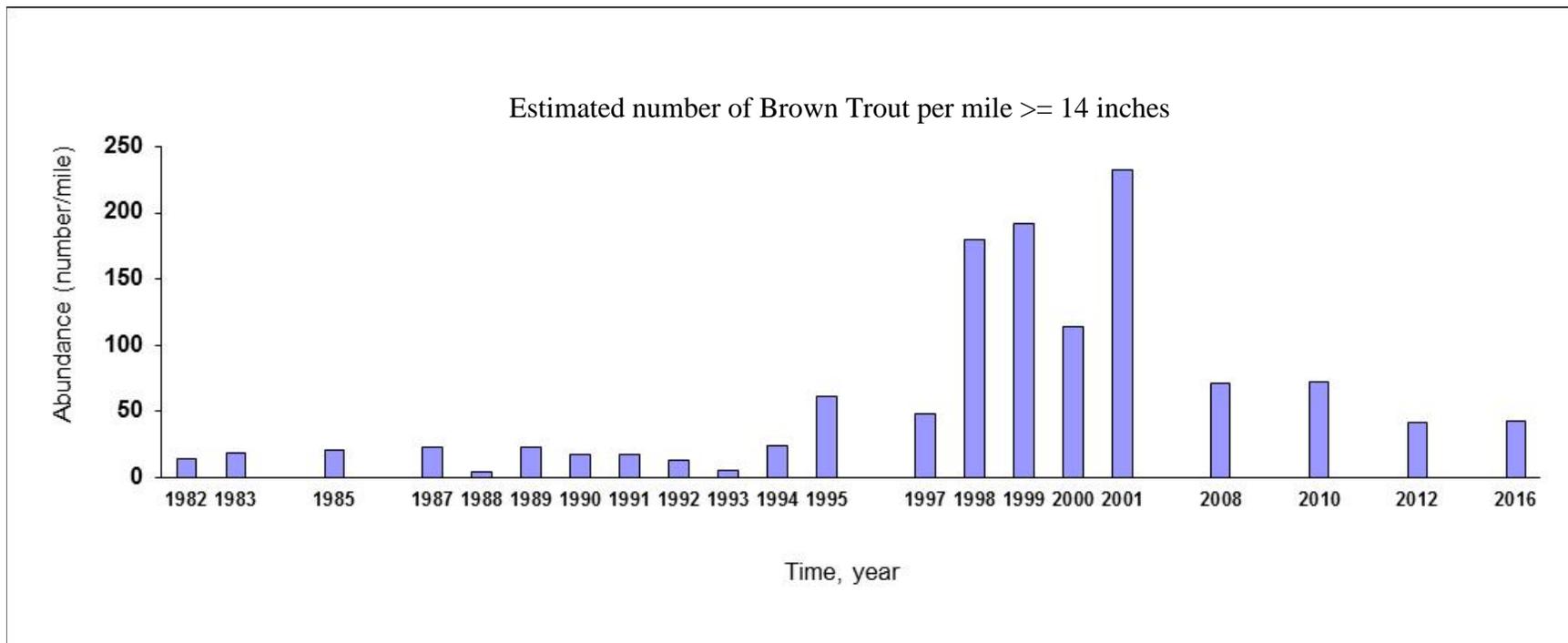


Figure 3. Comparison of the estimated number of Brown Trout per mile greater than 14 inches in total length for Section 06 of Bushkill Creek from 1982 through 2016. Population assessments were not performed in 1984, 1986, 1996, from 2002 through 2007, 2009, 2011, and 2013 through 2015, which are noted on the X-axis as being unlisted years.

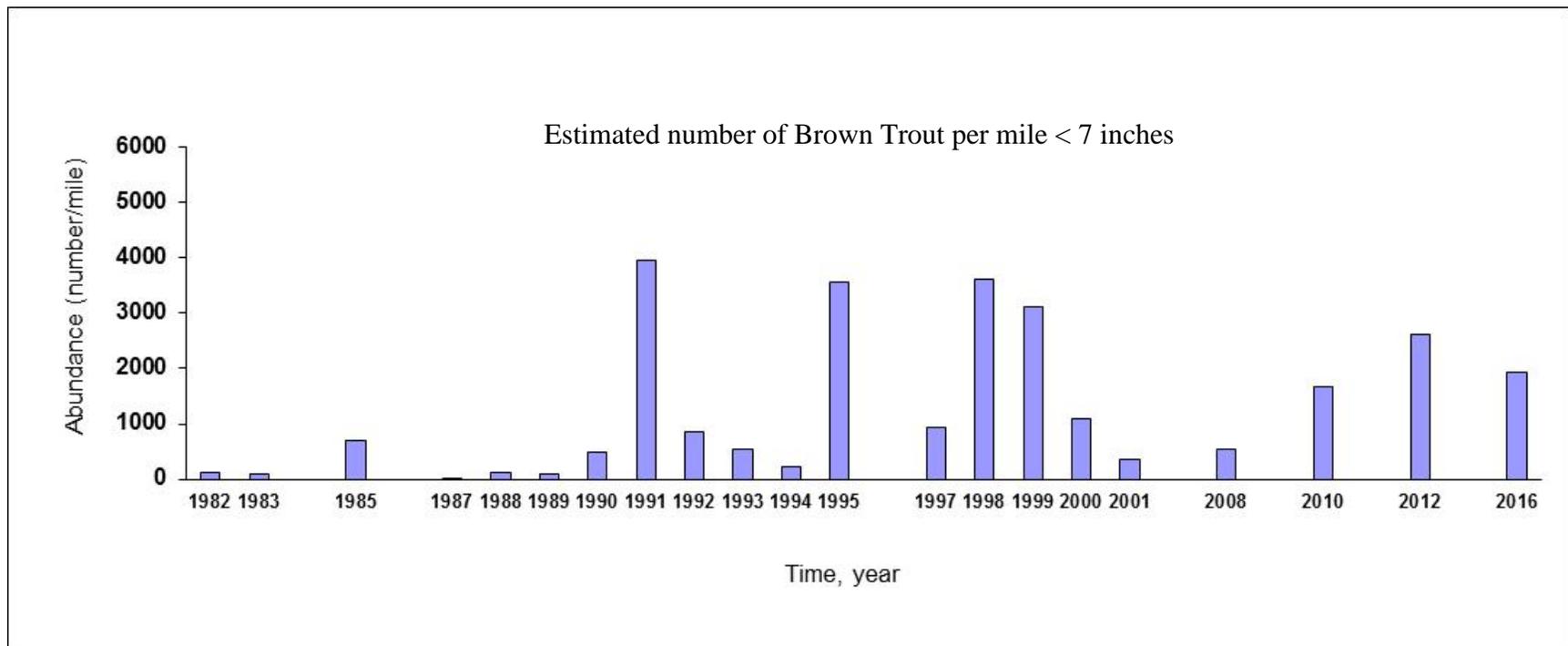


Figure 4. Comparison of the estimated number of Brown Trout per mile < 7 inches in total length for Section 06 of Bushkill Creek from 1982 through 2016. Population assessments were not performed in 1984, 1986, 1996, from 2002 through 2007, 2009, 2011, and 2013 through 2015, which are noted on the X-axis as being unlisted years.