

Stocking History of Great Smoky Mountains NP

Discussion

The termination of stocking in 1976 had a profound impact on the angling profile in GRSM. By the 1970's, both local and non-local anglers fishing GRSM were already changing to self-imposed catch-and-release practices. In fact, as early as the late 1960's, creel data indicated >70% of the fish anglers caught were released and the majority of these fish were wild fish (Wallis 1971). Although catch-and-release is a necessary management tool for various species in many areas of the country, GRSM data suggests "catch-and-release" offers no benefit to anglers or wild trout populations in the Park. In fact, similar to Hunt and Brynildson (1964), we suggest that in many streams, current regulations result in a waste (i.e. an under utilization) of legal trout (>178mm) rather than a benefit to the fishery.

Before stocking was halted throughout GRSM in 1976, 77% (SE 0.0) of anglers who caught fish harvested fish. However, after 1976, only 48% (SE 7.7) of anglers who caught fish harvested fish (Figure 14). In addition, before stocking was discontinued in 1976, 29% (SE 3.5) of GRSM anglers typically harvested 5-fish, whereas after stocking was discontinued, only 3% (SE 1.4) of anglers harvested 5 fish (Figure 15). As early Park managers had hoped, without stocking, the clientele of anglers visiting the Park changed dramatically from a group largely driven by harvest to one driven by the catch and overall experience (Wallis 1960, Redmond 1986, Responsive Management 1999). Angler mindsets were changing from optimum sustained *harvest* (1930's-1970's) to optimum sustained *yield* (1970's-today), which focuses more on a quality experience (Clark *et al.* 1981; Nielsen 1999). Catch-and-release soon became a familiar buzzword with many anglers and conservation groups like Trout Unlimited (TU) and Federation of Flyfishers (FFF). Using angler interviews, Responsive Management (1999) determined the top 3 reasons anglers fished in 1980 were for food (28%), for sport (20%) and to be with family and friends (19%). However, when Responsive Management repeated the survey in 1998, 35% of anglers interviewed indicated they fished to relax, 30% to be with family and friends, and 13% to be close to nature (Responsive Management 1999). These same trends continue to be observed in GRSM today.

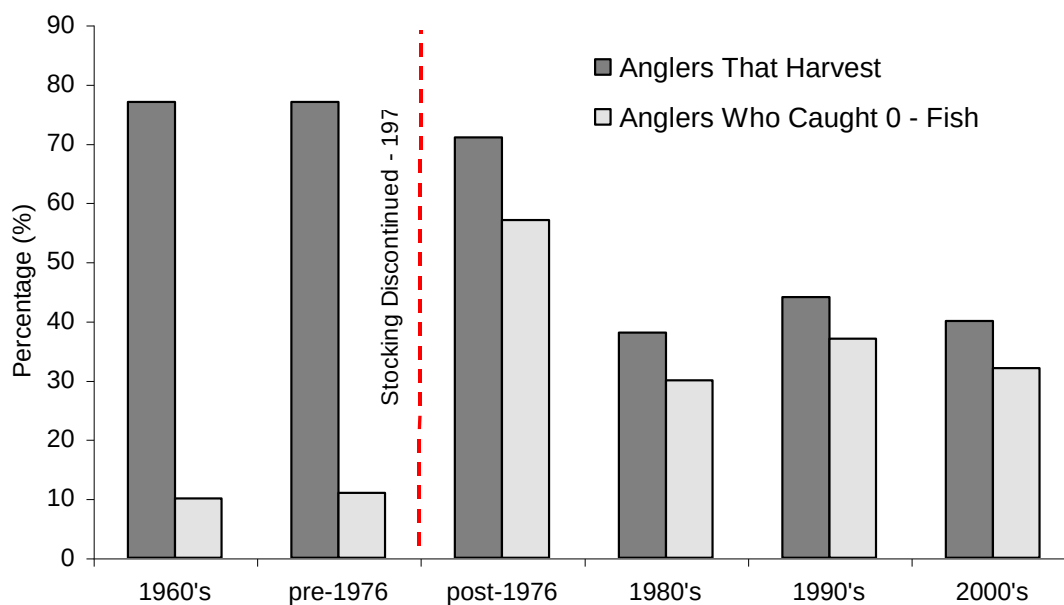


Figure 14. -- Comparison of the percentage of GRSM angler who harvested fish and the number of anglers who caught zero fish, before and after stocking was discontinued in 1976.

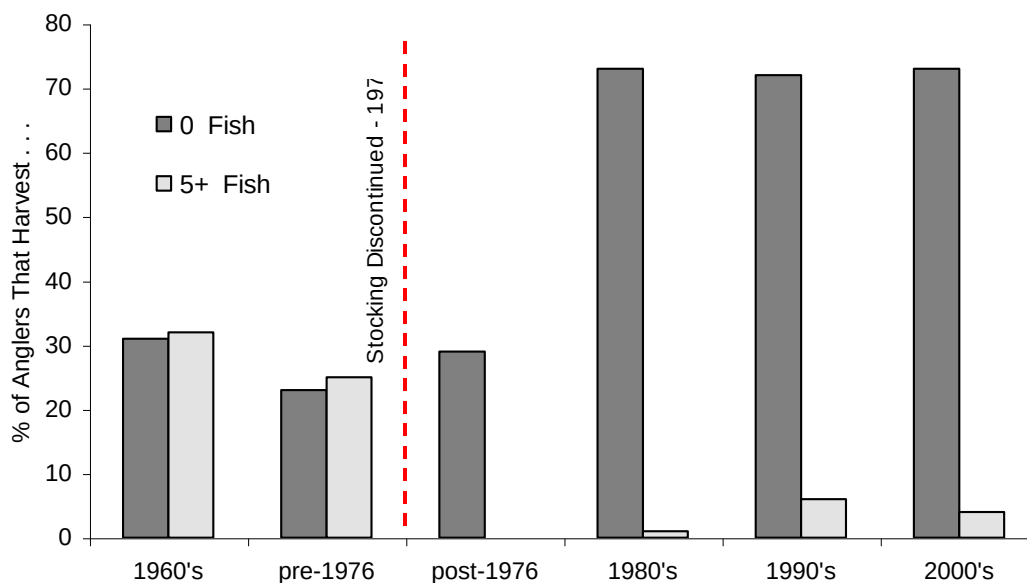


Figure 15. -- Comparison of the percentage of GRSM anglers that harvested zero-fish and five-fish, before and after stocking was discontinued in 1976 (dashed line). Data is generated annually from ranger creel surveys conducted throughout GRSM.