

BLUE RIVER TROUT CREEL SURVEY RESULTS, 1970-76

Paul E. Mauck

Oklahoma Department of Wildlife Conservation, Oklahoma City, Oklahoma 73105

The objective of this study was to measure angler participation and success of a "put and take" trout fishery established in the Blue River in south central Oklahoma.

The 374-ha Blue River Public Fishing and Hunting Area is located 4.8 km east and 9.7 km north of Tishomingo in Johnston County. This area was purchased from private ownership by the Oklahoma Department of Wildlife Conservation through Aid to Fish and Wildlife Restoration Funds (Project FW-24-L) during 1967. The main attraction of this area is the 2.8-km part of Blue River that flows from north to south across the east portion of the area. This scenic stream maintains 30 to 60 c.f.s. flows minus flood water. The upper Blue River is fed by springs and flows over numerous granite boulders forming waterfalls and pools that further enhance fishing and aesthetic values. Because of the numerous springs, water temperatures generally remain below 21 C except in July, August, and September, when temperatures are near 27 C.

The main objective in the management area is to provide anglers access to quality stream fishing. The Blue River Area operates a "put and take" trout fishery from the last Saturday in October to March 31 of the following year. Anglers continue harvesting trout throughout April. Trout are obtained from the U.S. Fish and Wildlife Service Trout Hatchery at Mountain Home, Arkansas. The trout average 228-254 mm in length and 130 g in weight.

Creel surveys were conducted annually from 1970 through 1976 as described by Bennett (1) and Mauck (2). Results of these creel surveys are summarized in Table 1. An estimated 12,560 anglers spent 53,082 hours to creel 34,424 trout. The average angler fished approximately four hours to catch three fish. Three-fourths (74.5%) of the anglers visiting the area caught trout. Resident anglers comprised 77.8% of the people utilizing the area. A total of 63.6% of the trout stocked during the study period were harvested.

Six consecutive years of creel data indicate an upward trend in the number of trout anglers using the area (11,695 in 1970 to 16,656 in 1976) and the total hours that anglers fished (44,336 to 65,641). The overall harvest rate fluctuated from a low of 55.5% in 1972-1973 to a high of 82.1% in the 1975-1976 season. Angler success and harvest rates are adversely affected by turbid water. Trout seasons during extremely wet years and fluctuating river conditions generally resulted in poorer angler success and harvest rates. The harvest rate of 82.1% during the 1975-1976 trout season was very good because the river remained clear and stable during most of the season.

ACKNOWLEDGMENT

This study was funded by Fish and Wildlife Restoration Funds Project FW-26-D, Oklahoma.

REFERENCES

1. CHARLES D. BENNETT, unpublished report, *Critique - Blue River Trout Season, 1969*, 8 pp.
2. PAUL E. MAUCK, unpublished report, *Summary of Blue River Trout Season, January 17, 1970 to March 31, 1970*, 1970, 7 pp.

TABLE 1. *Blue River trout creel information from the 1970-1971 through 1975-1976 trout seasons.*

Season	Estimated anglers	Oklahoma residents (%)	Estimated angling time (hr)	Average trout per angler trip	Estimated trout creel	Number trout stocked	Angler trip (hr)	Average trout creel per angler hr	Percent of trout harvested
1970-1971	11,695	75.8	44,336	2.58	28,550	46,468	3.9	0.68	61.4
1971-1972	11,114	81.9	44,003	2.70	29,991	51,135	4.0	0.68	58.7
1972-1973	11,962	82.2	45,701	2.88	34,485	62,088	3.8	0.75	55.5
1973-1974	11,736	69.4	57,886	2.96	34,790	53,734	4.9	0.60	64.7
1974-1975	12,195	80.0	60,926	3.01	36,686	61,819	5.0	0.60	59.3
1975-1976	16,656	78.8	65,641	2.52	42,041	51,185	3.7	0.64	82.1
SIX-YEAR AVERAGE	12,560	77.8	53,082	2.78	34,424	54,405	4.2	0.66	63.6