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Report No. 1400

THE RECREATIONAL ACTIVITIES ON THE RIFLE RIVER
AREA IN 1953 WITH SPECIAL EMPHASIS ON ANGLING

By

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FISH DIVISION

INTRODUCTION

In 1953 a total of 24,692 permits were issued at the Rifle River Area checking station. This marked a new yearly high in over-all use and topped the 1952 total by 3,525, or an increase of 14.3 percent.

A breakdown of the data into specific recreational activities shows that 5,115 permits were issued to anglers, 5,994 to hunters, 88 to trappers, 17 to froggers, and 13,478 to those classed as sight-seers. Angler permits were 22.6 percent (1,156) above the 1952 total, hunters increased by 51.4 percent (3,079), trappers dropped 24.1 percent (28), an equal number of frogging permits was issued (17), and the total for sight-seers fell 4.9 percent (698) below that for the previous year.

More permits were issued to anglers in 1953 than in any previous year. The data for all fishing reveal that angler days were up 20.8 percent (1,105), and the total catch figure topped the 1952 figure by 17.8 percent (1,758), or on the basis of weight by 18.3 percent (464.96 pounds).

This new high in over-all angling intensity reflects for the most part a trout season that was unparalleled in Rifle River Area history. More trout fishermen (3,036 angler days) fished a greater total of hours (7,846.5), and took more trout (2,017) than in any other year.

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These figures reflect increases over the 1952 season of 26.9 percent (818) in angler days, 35.6 percent (2,792.5) in hours of fishing time, 68.4 percent (1,380) in number of trout taken, and 52.9 percent (365.53) in pounds of trout creeled. The increases were also carried over into angling quality, and the average catch per hour of 0.26 trout (0.20 per hour per angler) for the combined trout streams in 1953 was double that of the 0.13 trout per hour calculated for the 1952 season. The pounds per hour increase of from 0.07 in 1952 to 0.09 in 1953 was proportionately smaller due to the larger percentage of small hatchery fish that entered the catch.

By excluding planted trout from the totals for 1952 and 1953, the catch per hour for native trout only remains the same (0.10) for both years, and the percentage increase for the total take drops to the much less impressive figure of 36.9 percent. The apparent ups and downs in annual angling quality for all Area trout streams combined appear to have been largely the result of an increased or decreased catch of hatchery fish. Catch-per-hour figures for 1950, 1951, 1952, and 1953, that were computed on the basis of native trout only show no appreciable fluctuations in angling quality (Table 3).

As usual the Rifle River received by far the most fishing pressure of any of the Area streams; 88.8 percent (2,695) of the angler days recorded for trout fishermen, 92.9 percent (7,291.0) of the total hours of angling effort, and 94.9 percent (1,915) of the total catch, of which 1,195 were hatchery fish. However, Fontinalis Creek was again the most rewarding of the Area streams on the basis of angling quality. The little brook produced brooks, browns, and rainbows at the rate of 0.58 trout per hour, (0.36 per hour per angler), and 0.13 pound per hour.

The 1953 increases in angling pressure and catch on the Rifle River Area lakes were not so impressive as those recorded for the trout streams. The 2,270 angler days of fishing on all lakes was 12.6 percent (287) above the

1952 total, while the 7,246.5 hours of fishing effort represented an increase of 18.2 percent (1,321.5), and the total catch of 7,630 was only 7.8 percent (594) above the figure for the previous year on the basis of numbers and 7.55 (125.60) when calculated in pounds. However, when hatchery trout were excluded from the data for both years, the number of fish taken in 1953 was only 2.0 percent (156) above the 1952 total, and total pounds dropped 5.7 percent (87.68 pounds).

As might be expected from this disproportionate increase between angling pressure and total catch, angling quality in 1953 was below 1952 levels. The average number per hour for all lakes combined fell from 1.19 (1.25 per hour per angler) in 1952 to 1.05 (1.04 per hour per angler in 1953, and pounds per hour) dropped from 0.26 to 0.23. When computed on the basis of quality per acre, however, the picture was reversed and an average of 22.48 (4.91 pounds) fish were taken from each acre as compared to 20.58 fish (4.51 pounds) in the 1952 season.

Of the 9 lakes fished in 1953 (Devoe, Dollar, Devil's Wash-Basin, Loon, Mallard Pond, North, South Pond, Spring, and Teal), Devoe Lake exceeded, by far, all others in both angling pressure and total fish creeled. The 1,253 angler days recorded for the Area's largest lake accounted for more than half (55.2 percent) of the total for all lakes combined, while the 4,395.5 hours of angling effort amounted to 60.7 percent of the total fishing time, and the catch of 3,979 represented 52.2 percent of all fish taken by lake anglers. Spring Lake, on the other hand, accounted for only 4.2 percent (96) of the total angler days recorded for all lakes combined, 2.4 percent of the total hours, and 2.0 percent of the total catch. Records for 1952 show Spring Lake as one of the top Area lakes in both angling pressure and total catch but a winterkill intervened to reduce fishing pressure measured in angler days by 69.0 percent (214), or on the basis of total hours by 82.6 percent (826.5), and the catch in turn fell off by 91.4 percent (1,624).

Dollar Lake also declined in popularity and production totals in 1953, but catch-per-hour figures were higher than those for the previous year. Angler days dropped 25.4 percent (113) below the 1952 total but the catch which was only 3.1 percent lower (74) raised angling success figures to 2.32 (2.31 per hour per angler) from the 1.77 (1.78 per hour per angler) average for the previous season, and on the basis of quality in pounds from 0.34 to 0.39 pound for each hour of angling effort.

The data for North Lake, on the other hand, showed increases in fishing pressure and catch totals as well as in fishing quality. Angler days were up 27.6 percent (89), hours up 32.5 percent (322.5), and catch total up 56.5 percent (152) for the 1953 season. The number of fish per hour jumped from 0.18 in 1952 to 0.27 in 1953, and pounds per hour was up from 0.10 to 0.15. However, when computed on the basis of numbers per hour per angler, angling quality declined slightly from 0.24 to 0.20.

Loon Lake also showed increases in all departments except angling quality. Total angler days were up 31.9 percent (59), hours increased by 45.3 percent (233.0), and the catch was 22.6 percent above the 1952 total when measured in numbers and 25.2 percent (41.02) when calculated on the basis of total weight. Fishing quality, however, dropped from 1.98 (2.09 per hour per angler) in 1952 to 1.40 (1.25 per hour per angler) in 1953, and pounds per hour declined from 0.43 to 0.31.

Of the smaller lakes, Teal and South Pond were fished on by fewer anglers, and the Devil's Wash-Basin showed a considerable increase in fishing pressure. Teal Lake anglers were rewarded with nearly twice as many fish for each hour of fishing time, however, but quality figures dropped on both South Pond and the Devil's Wash-Basin.

Yellow perch (3,702), and bluegills (2,131) as in 1952, dominated the 1953 take of warm-water species from Rifle River Area lakes. Together these popular

pan fish comprised 76.4 percent of the total number of fish removed by lake anglers, and 51.8 percent of the total poundage. The catch of largemouth bass fell off in all Area lakes except North Lake. The Devoe Lake total for this species in 1953 was only half that of 1952, and only two-thirds as many were removed from Dollar Lake as in the previous season. However, the smallmouth bass total was considerably higher in 1953 due to an increase in the catch of this species for Devoe Lake of 33.7 percent and for North Lake of 25.6 percent. Northern pike, which in recent years have been insignificant in the lake totals as far as numbers are concerned but of considerable importance in terms of total weight, dropped from 15 fish in 1952 to 7 in the 1953 season.

The Whirlpool, which is in reality a backwater of the Rifle River but where fishing methods used are generally those employed by lake anglers and the catch is entirely made up of warm-water species, has been treated separately in this report so as not to present an unfair picture of trout stream angling in terms of angling pressure and quality. However, due to the geographical location of this small body of water, and also its surface connection with the Upper Rifle River, the data have been included in the section devoted to stream angling. In 1953, angling data for the Whirlpool gave 73 angler days, 191.5 hours, and 66 fish weighing a total of 70.20 pounds as compared to 87 angler days, 215.5 hours, and 55 fish with an aggregate weight of 93.50 pounds for the 1952 season. Only 7 northern pike were taken in 1953 as compared to 21 in 1952, but the take of suckers jumped from 33 to 54 raising catch-per-hour figures from 0.26 (0.42 pound per hour) to 0.34 (0.37 pound per hour) in 1953.

Permits issued for all kinds of hunting in 1953 were 51.4 percent (3,079) above 1952 figures and represented increases of 51.2 percent (3,062) in hunter days, and 59.5 percent (15,917.0) in total hours recorded. However, the total bag of all species of game birds and animals was 8.7 percent (48) below 1952 totals. It was this big increase in hunting pressure that contributed most to the over-all climb in permits issued for all types of recreational activities.

Small game hunters were only slightly more numerous, 1.5 percent (16 hunter days) than in the previous year, and as a group they spent 3.7 percent less time (118.5 fewer hours) in the field, and bagged a considerably smaller total of game birds and animals, 24.4 percent (115).

A sharp reduction in the kill of ruffed grouse (191 in 1953 as compared to 331 in 1952) and woodcock (40 in 1953 as compared to 61 in 1952) was largely responsible for the drop in game-bag totals. However, the total kills of both snowshoe hares and cottontail rabbits were considerably above 1952 levels. In 1953 a total of 71 snowshoes were bagged by small game hunters as compared to 41 in 1952, and the cottontail totals were 14 and 5 respectively. Ducks were also more numerous in hunter's game bags in 1953, with a total of 40 being taken as compared to 35 in the 1952 waterfowl season.

During the 1953 deer season more hunters killed more deer on the Rifle River Area than in any other year since the tract was opened to the public. The new highs in total hunter days (4,882) and hours (23,671.5) resulted in a record kill of 145 deer including 64 antlered bucks. These figures were more than double those recorded for the previous record year of 1946 and exceeded 1952 totals by 62.4 percent (3,046) in hunter days, 70.6 percent (16,035.5) in hours of hunting time, and 46.2 percent (67) in the number of deer killed. Also they represent large gains and new highs for both the rifle and archery seasons. The breakdown for rifle hunting gives totals including 4,445 hunter days, 21,879.5 hours, and a bag of 141 (64 antlered bucks) as compared to 1,527 hunter days, 6,423.5 hours, and 76 (28 antlered bucks) in the 1952 season. Archery hunting statistics show 437 hunter days, 1,792.0 hours, and 4 deer killed in 1953 as compared to 309 hunter days, 1,212.5 hours, and a bag of 2 deer in 1952.

The 1953 total of 88 permits issued to trappers was 24.1 percent (28) below 1952 figures and reflected the lightest trapper activity since 1950. Fur harvest figures were also down with a total of 150 pelts being taken during

both the beaver and muskrat seasons as compared to 255 in 1952. This drop in total furbearers taken reflected a reduced take of all animals represented in the totals. In 1953, only 10 beaver, 136 muskrats, and 4 mink were harvested as compared to 17 beaver, 225 muskrats, and 11 mink in the 1952 fur season. This lowered the average success of each trapper from 2.2 (9.7 pounds) in 1952 to 1.7 (8.21 pounds) in 1953.

The trout streams

In 1953 more trout fishermen fished a greater total of hours and took more trout from the Rifle River Area streams than in any previous year (Table 3). Totals for all streams combined of 3,036 angler days, 7,846.5 hours of fishing time, and 2,017 trout represent increases over the 1952 season of 26.9 percent (818) in angler days, 35.6 percent (2,792.5) in total hours, and 68.4 percent (1,380) in numbers of trout creeled (Table 1). The reason for these large percentage increases in the catch, and perhaps angling pressure as well, was due entirely to the considerably larger numbers of hatchery trout that appeared in the catch.¹ When hatchery fish were excluded from the totals for both years the increase in numbers of trout caught in 1953 was only a little more than half (36.9 percent) as great. Again, viewed from the standpoint of angling quality, hatchery fish influenced the final calculations to an even greater degree. The over-all catch-per-hour figures were 0.26 (0.20 per hour per angler), and 0.09 pound in 1953 as compared to 0.13 trout and 0.07 pound in 1952, but by leaving out the hatchery fish numbers of trout taken for each hour of angling effort they were 0.10 in 1953 and the same for the 1952 season (Table 2). The catch of hatchery trout has been the influencing factor in angling quality fluctuations for the combined streams since 1949.² When calculations were made on the basis

¹A total of 1,206 hatchery trout were taken from Area streams in 1953 as compared to 126 in 1952.

²Hatchery trout appeared in the catch before 1949, but fluctuations in angling quality between 1945 and 1949 were apparently due to larger or smaller catches of native fish in the various years.

of native trout only for each of the years since then no appreciable year to year difference was found to exist in the catch per hour averages (Table 3).

As usual, creel census data for the Rifle River were the deciding factor in trout stream fishing totals for the combined streams. The Area's largest stream accounted for 88.8 percent (2,695) of the angler days, 92.9 percent (7,291.0) of the total hours, and 94.9 percent (1,915) of the total catch of all trout streams in 1953.³

Anglers fishing the Rifle River creeled trout at the rate of 0.26 an hour (0.21 per hour per angler) as compared to 0.11 in 1952, but by excluding hatchery fish these figures were reduced to 0.10 for 1953 and 0.09 for the 1952 season. Pounds per hour averages for all trout taken were 0.10 in 1953 and 0.06 in the 1952 season. A larger catch of fish other than trout in 1952⁴ narrowed the margin between catch-per-hour figures for the two years when based on all species entering the catch. In 1953 the average angling quality for all species was 0.28 as compared to 0.19 in 1952.

Besides trout, 2 largemouth bass, 1 bluegill, 2 pumpkinseeds, 19 yellow perch, 30 rock bass, 3 bullheads, 72 common suckers, 1 carp, and 2 creek chubs were taken from the Rifle River for a total of 132 fish.

The 1953 totals for Gamble Creek included 160 angler days, 274.0 hours, and a catch of 44 trout as compared to 78 angler days, 107.5 hours, and 16 trout for the 1952 season. The new totals raised catch-per-hour figures for this stream from 0.15 (0.14 per hour per angler) in 1952 to 0.16 (0.16 per hour per angler) in 1953. On the basis of weight angling quality dropped slightly from 0.06 pound per hour to 0.05 pound per hour.

³In 1952 the Rifle River accounted for 88.6 percent of the total angler days and 81.0 percent of the total trout taken.

⁴A total of 360 non-trout species were taken from the Rifle River in 1952 as compared to 132 in 1953.

Houghton Creek totals for 1953 were considerably lower than those for the 1952 season. Only 70 angler days, 122 hours, and 26 trout were recorded, as compared to 106 angler days, 239.5 hours, and 39 trout in the 1952 season. However, angling quality improved in 1953 with 0.21 (0.17 per hour per angler) trout being taken for each hour fished as compared to 0.16 (0.15 per hour per angler) in 1952. Pounds per hour quality also went up in 1953 to an average of 0.10 as compared to 0.08 in the previous season.

Angling pressure on Brown Trout Creek more than doubled in 1953 with 44 angler days and 57.5 hours of fishing time being recorded as compared to 15 angler days and 23.0 hours in 1952. Also the catch of 6 trout was exactly twice that of the previous year. However, angling quality dropped from 0.13 (0.09 per hour per angler) in 1952 to 0.10 (0.09 per hour per angler) in 1953, and the take calculated on the basis of weight quality remained the same at 0.03 pound per hour.

Fontinalis Creek was again the Area's most productive stream in terms of the number of anglers who were successful (23.1 percent), and in average numbers (0.58) and pound (0.13) of trout being taken for each hour of fishing time. However, this was a drop from 1952 figures that gave 34.7 percent of the angler days as successful and an average of 0.68 trout and 0.20 pound of trout for each hour of angling effort. Also, angling pressure fell from 49 angler days and 91.5 hours in 1952 to 26 angler days and 33.0 hours in the 1953 season.

The Diversion, which rewarded 4 anglers with 1 rainbow trout in 1952, received more attention from fishermen during the 1953 season. Totals for 1953 included 15 angler days, 33.5 hours of fishing time and a catch of 5 trout.

In 1953 a total of 26 angler days, 33.5 hours of fishing time, and a catch of 2 trout were recorded for Skunk Creek. This stream was not fished on during the 1952 season.

On August 26, 1953 an experimental planting of trained (P.R.S.) hatchery rainbows was made in the Rifle River. Planting totals consisted of 450 trained fish and 500 non-trained hatchery fish for controls. Of these 950 rainbow trout, 59 of the trained fish and 87 of the control fish were taken by anglers during the period from August 26 through the end of the trout season (September 13). This planting apparently influenced catch totals to a considerable extent near the end of the trout season when the catch of native trout is usually negligible (Table 4).

Figure 1 also shows the influence of brown trout stocking on total fish production for the Rifle River, particularly during mid-season. A careful study of this chart will also show a correlation between angling pressure and total catch of native brown trout (Figure 1, page 17).

Angling pressure decreased on the Whirlpool in 1953 but catch totals were well above 1952 levels. Totals of 73 angler days, 191.5 hours, and 66 warm-water fish for a total weight of 70.20 pounds were recorded for 1953 as compared to 86 angler days, 215.5 hours, and 55 fish weighing a total of 93.50 pounds for the 1952 season (Table 5).

The lakes

The 1953 creel census records for the Rifle River Area lakes show increases over those of 1952 of 12.6 percent (287) in angler days, 18.2 percent (1,321.5) in total hours, 7.8 percent (594) in the number of fish caught, and 7.5 percent (125.60) in the total pounds of fish taken. These totals for the combined lakes reflect increases in angling pressure and total catch for Devoe, Loon, and North lakes, and a decrease in angler days, fishing time, and the number of fish taken for Dollar Lake, Spring Lake, and South Pond. Angling pressure went down on Teal Lake but an equal number of fish were taken, while angler days and hours increased on the Devil's Wash-Basin and the catch decreased (Table 6). However, these combined totals for all lake fishing places 1953 second only to 1950 in

Table 1.--Summary of angling results on Rifle River Area streams in 1953.
(For detailed information see Tables 2, 3, and 4)

Stream	Total angler-days	Number angler-days, 0 trout	Percentage angler days, 0 trout	Total hours of angling	Brook trout		Brown trout		Rainbow trout		All trout		Other fish	
					Num-ber	Wt. (oz.)	Num-ber	Wt. (oz.)	Num-ber	Wt. (oz.)	Num-ber	Wt. (oz.)	Num-ber	Wt. (oz.)
Rifle R. (Upper)	500	473	94.6	985.5	1	6.0	39	251.9	7	61.3	47	319.2	59	190.5
Rifle R. (Lower)	2,195	1,498	68.2	6,305.5	6	28.3	1,649	9,971.1	213	749.9	1,868	10,749.3	73	985.0
RIFLE R. (TOTALS)	2,695	1,971	73.1	7,291.0	7	34.3	1,688	10,223.0	220	811.2	1,915	11,068.5	132	1,175.5
Gamble Cr. (Upper)	55	49	92.5	104.0	3	9.3	9	42.5	0	...	12	51.8	0	...
Gamble Cr. (Lower)	105	87	82.9	170.0	4	15.0	20	120.2	8	28.9	32	164.1	2	9.5
GAMBLE CR. (TOTALS)	160	136	85.0	274.0	7	24.3	29	162.7	8	28.9	44	215.9	2	9.5
HOUGHTON CR.	70	54	77.1	122.0	0	...	25	191.3	1	4.0	26	195.3	2	104.0
BROWN TROUT CR.	44	41	93.2	57.5	0	...	6	24.7	0	...	6	24.7	1	5.0
FONTINALIS CR.	26	20	76.9	33.0	6	17.0	13	52.0	0	...	19	69.0	0	...
DIVERSION	15	12	80.0	35.5	1	3.1	3	12.8	1	3.0	5	18.9	0	...
SKUNK CR.	26	24	92.3	33.5	0	...	2	12.0	0	...	2	12.0	0	...
STREAM TOTALS, 1953	3,036	2,258	74.4	7,846.5	21	78.7 ¹	1,766	10,678.9 ²	230	847.1 ³	2,017	11,604.3	137	1,294.0
TOTALS, 1952	(2,218)	(1,874)	(84.5)	(5,054.0)	(28)	(121.5)	(500)	(4,792.7)	(109)	(548.5)	(637)	(5,462.7)	(364)	(1,587.0)

¹Curve weights on 2 brook trout

²Curve weights on 635 brown trout

³Curve weights on 78 rainbow trout

Table 2.--Angling quality on Rifle River Area trout streams, 1953

Stream	Native trout		Hatchery trout		All trout		All fish		Trout	All fish
	Number per hour	Pound per hour	Number per hour	Pound per hour	Number per hour	Pound per hour	Number per hour	Pound per hour	Number per hour per angler	Number per hour per angler
Rifle R. (Upper)	0.02	0.01	0.02	0.008	0.05	0.02	0.11	0.03	0.04	0.10
Rifle R. (Lower)	0.11	0.06	0.18	0.05	0.30	0.11	0.31	0.12	0.25	0.26
RIFLE RIVER	0.10	0.05	0.16	0.04	0.26	0.10	0.28	0.11	0.21	0.23
Gamble Cr. (Upper)	0.12	0.03	0	0	0.12	0.03	0.12	0.03	0.07	0.07
Gamble Cr. (Lower)	0.16	0.05	0.02	0.007	0.19	0.06	0.20	0.06	0.18	0.20
GAMBLE CREEK	0.15	0.04	0.01	0.004	0.16	0.05	0.17	0.05	0.14	0.16
HOUGHTON CREEK	0.19	0.09	0.02	0.009	0.21	0.10	0.23	0.15	0.17	0.20
BROWN TROUT CREEK	0.10	0.03	0	0	0.10	0.03	0.12	0.03	0.04	0.09
FONTINALIS CREEK	0.55	0.12	0.03	0.008	0.58	0.13	0.58	0.13	0.36	0.36
DIVERSION	0.08	0.02	0.06	0.01	0.14	0.03	0.14	0.03	0.13	0.13
SKUNK CREEK	0.06	0.02	0	0	0.06	0.02	0.06	0.02	0.08	0.08
All streams combined										
1953	0.10	0.05	0.15	0.04	0.26	0.09	0.27	0.10	0.20	0.22
1952	(0.10)	...	(0.03)	...	(0.13)	(0.07)	(0.20)	(0.09)	...	...

↓ Values for "all trout" are sometimes higher than the sum of values for native and hatchery trout because each value is computed separately and rounded off to the nearest figure shown.

Table 3.--Angling comparisons of combined Rifle River Area trout streams covering a 9-year period, 1945 through 1953.

Year	Total angler-days	Percentage angler-days, 0 trout	Total hours of angling	Brook trout		Brown trout		Rainbow trout		Total trout		Catch per hour, all trout	Catch per hour, native trout
				Num-ber	Wt. (lbs.)	Num-ber	Wt. (lbs.)	Num-ber	Wt. (lbs.)	Num-ber	Wt. (lbs.)		
1945	1,472	87	3,397.5	25	9.67	381	181.52	12	4.36	418	195.56	0.12	0.12
1946	1,427	79	3,396.0	28	7.17	993	374.41	45	13.90	1,066	395.48	0.31	0.30
1947	1,959	72	4,659.0	71	...	1,360	...	125	...	1,556	587.44	0.33	...
1948	2,162	80	5,081.0	22	5.45	1,022	425.17	40	11.72	1,084	442.34	0.21	0.16
1949	1,749	80	4,135.5	27	6.65	762	312.79	85	46.29	874	365.73	0.21	0.19
1950	2,612	83	6,917.0	7	1.87	633	273.53	407	92.94	1,047	368.34	0.15	0.09
1951	2,827	81	7,266.0	9	2.65	711	350.26	534	154.45	1,254	507.36	0.17	0.11
1952	2,218	85	5,054.0	28	7.59	500	299.54	109	34.28	637	341.42	0.13	0.10
1953	3,036	74	7,846.5	21	4.92	1,766	667.40	230	52.94	2,017	725.26	0.26	0.10
9-year Totals	19,462	...	47,752.5	238	...	8,128	...	1,587	...	9,953	...	...	...

Table 4.--Daily angling totals for the Rifle River during the period in which trained hatchery rainbow trout were influencing the catch totals for that stream

Date	Total angler-days	Total hours of angling	Trained trout taken	Control trout taken	Other trout taken	Total trout
Aug. 26	1	1.5	0	0	0	0
27	8	22.5	3	4	3	10
28	9	21.5	1	3	2	6
29	22	67.0	3	8	10	21
30	18	50.5	2	3	10	15
31	11	31.0	2	3	1	6
Sept. 1	10	19.0	1	0	1	2
2	9	16.5	0	0	1	1
3	4	8.0	4	2	1	7
4	5	10.0	0	0	2	2
5	40	137.0	13	16	16	45
6	40	112.0	2	7	8	17
7	39	108.5	5	8	4	17
8	7	17.5	2	1	1	4
9	1	4.0	0	0	0	0
10	1	1.0	0	0	0	0
11	5	14.0	1	3	1	5
12	20	75.5	11	21	15	48
13	14	45.0	9	8	7	24
Totals	264	762.0	59	87	83	229

Table 5.--Angling data from the Whirlpool in 1953 and comparison with 1952 statistics

GENERAL INFORMATION

Year	Total angler-days	Number angler-days, 0 fish	Percentage of angler-days, 0 fish	Total hours of angling	Total game fish taken	Weight of game fish	Total rough fish taken	Weight of rough fish	Total fish	Total pounds
1953	73	38	52.1	191.5	10	17.20	56	53.00	66	70.20
(1952)	(86)	(53)	(61.7)	(215.5)	(22)	(57.12)	(33)	(36.38)	(55)	(93.50)

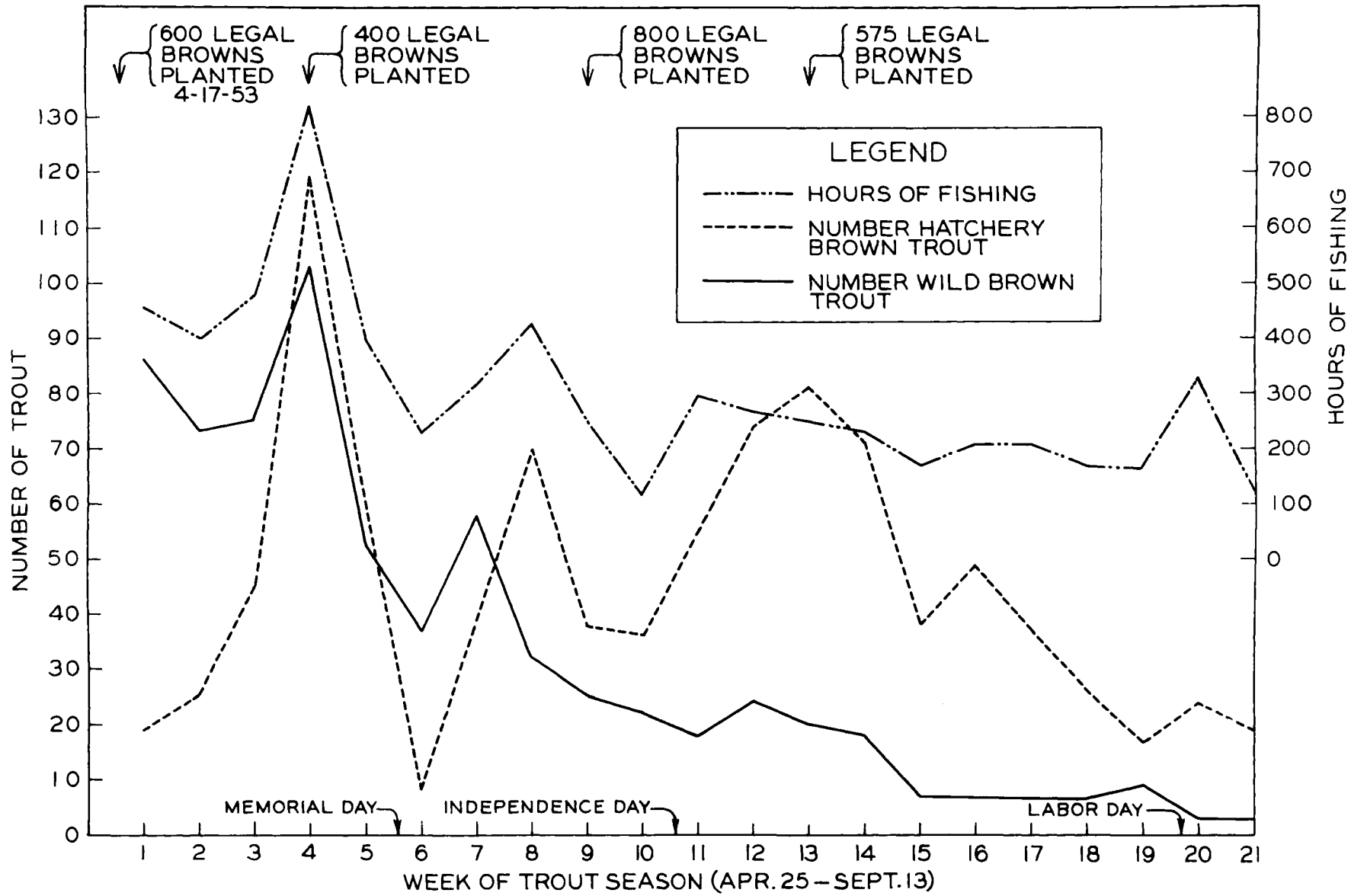
SPECIES COMPOSITION

Year	Largemouth bass		Smallmouth bass		Northern pike		Yellow perch		Common suckers		Carp	
	Number	Weight, ounces	Number	Weight, Ounces	Number	Weight, ounces	Number	Weight, ounces	Number	Weight, ounces	Number	Weight, ounces
1953	1	41.5	1	8.5	7	222.0	1	3.0	54	680.0	2	168.0
(1952)	(0)		(1)	(61.0)	(21)	(853.0)	(0)		(33)	(582.0)	(0)	

ANGLING QUALITY

Year	Number per hour	Pound per hour	Number per hour per angler
1953	0.34	0.37	0.32
(1952)	(0.26)	(0.43)	...

Figure 1.--Seasonal trend in catch of hatchery brown trout
and wild brown trout in the Lower Rifle, 1953



the number of fish caught, and fourth behind 1945, 1949, and 1950 in total angler days (Table 9).

Hatchery rainbows taken from Devoe Lake were a big influence on the increase in catch total over the 1952 season. When hatchery fish were excluded from the data for both 1952 and 1953 the number of fish taken in the latter year was only 2.0 percent (156) above the number taken in 1952, and total pounds dropped (5.7 percent (87.68 pounds) below figures for the previous year.

In 1953 angling quality dropped to 1.05 (1.04 per hour per angler) fish per hour from the 1952 level of 1.19 (1.25 per hour per angler) fish per hour. On the basis of weight, 0.23 pound of fish were taken for each hour of angling effort in 1953 as compared to 0.26 pound in the 1952 season (Table 7).

Devoe Lake received more fishing pressure and produced more fish than any of the other area lakes in 1953. Totals for the Area's largest body of water included 1,253 angler days, 4,395.5 hours, and 3,979 fish as compared to 727 angler days, 2,389.0 hours, and 1,780 fish for the 1952 season. Angling quality rose to 0.91 (0.88 per hour per angler) and 0.20 pound per hour from the 1952 figures of 0.74 (0.77 per hour per angler) and 0.17 pound for each hour of fishing time. The best fishing on Devoe Lake occurred during the last two weeks of July when anglers took fish at the rate of 1.35 per hour per angler.

In 1952 Dollar Lake was the leading fish producer among Rifle River Area lakes, but in 1953 it fell to second place behind Devoe Lake. The 333 angler days recorded for Dollar represented a drop of 25.4 percent (113), and the catch of 2,257 fish a decline of 3.1 percent (74) from 1952 totals. Angling quality improved, however, with an average of 2.32 (2.31 per hour per angler) fish being taken for each hour of fishing as compared to 1.77 (1.78 per hour per angler) for the previous season, and on the basis of weight from 0.34 to 0.39 pound an hour. The last two weeks in June provided the best fishing with fish being taken at the rate of 3.48 per hour per angler.

North Lake ranked third among Area lakes in number of angler days (322), second in total hours (991.5), and fourth in the number of fish taken (269). These figures represented an increase over the 1952 season of 27.6 percent (89) in angler days, 32.5 percent (322.5) in total hours, and 56.5 percent (152) in number of fish caught. Angling quality also improved with fish being caught at the rate of 0.27 (0.20 per hour per angler) and 0.15 pound per hour as compared to 0.18 (0.24 per hour per angler) and 0.10 pound per hour in 1952. Fishing was at its best on North Lake during the first two weeks in June when fish were caught at the rate of 0.52 per hour per angler.

Loon Lake data for 1953 gives a total of 185 angler days, 514.0 hours, and 720 fish. This was an increase over the 1952 season of 31.9 percent (59) in angler days, 45.3 percent (233.0) in hours, and 22.6 percent in number of fish taken. However, angling quality dropped to 1.40 (1.25 per hour per angler) from 1.98 (2.09 per hour per angler) in 1952, and on the basis of weight to 0.31 pound from 0.43 pound per hour. As on Devoe Lake, the best fishing came during the second half of July when fish were being taken at the rate of 2.37 per hour per angler.

A winterkill on Spring Lake reduced angling intensity and catch totals to a level far below that recorded for 1952. The total of 96 angler days in 1953 was a 69.0 percent drop from the 1952 level, the total of 173.5 hours was 82.6 percent (826.5) lower, and the total of 152 fish marked a 91.4 percent (1,624) reduction in the total catch. Angling quality in 1953 dropped to 0.88 (1.15 per hour per angler) from an average of 1.77 (1.68 per hour per angler) in 1952, and quality measured in weight fell to 0.25 pound per hour from 0.41 pound per hour. After March only 2 fish were taken from Spring Lake, and the best fishing took place during the first half of March (4.89 fish per hour per angler) when special regulations to aid in the removal of dying fish were still in effect.

Teal Lake was fished on by fewer anglers in 1953 but the total catch was exactly the same as in the 1952 season. Angler days totaled 17 in 1953, a total of 48.5 hours were recorded, and 69 fish were taken as compared to 37 angler days, 77.0 hours, and 69 fish in 1952. An average of 1.42 (0.79 per hour per angler) fish per hour, and 0.32 pound per hour were taken in 1953, while in 1952 the average was 0.90 (0.72 per hour per angler) fish per hour and 0.18 pound per hour. The best fishing on Teal Lake was in July when angling quality figures reached 1.13 fish per hour per angler.

Totals for the Devil's Wash-Basin in 1953 included 23 angler days, 52 hours, and a catch of 88 fish as compared to 18 days, 31.5 hours, and 225 fish in 1952. Angling quality dropped to 1.69 (1.46 per hour per angler) in 1953 from the highest quality figures for any of the Area lakes in 1952 of 7.14 (7.73 per hour per angler) per hour. Quality measured on the basis of weight fell to 0.31 pound per hour from 0.43 pound per hour in the previous season. July was the most productive month with an average of 1.78 fish per hour per angler.

South Pond data for 1953 give a total of 38 angler days, 97.5 hours, and 96 fish as compared to 79 angler days, 159.5 hours, and 185 fish in 1952. Angling quality averaged 0.98 (0.98 per hour per angler) in numbers per hour, and 0.23 pound per hour as compared to 1.16 (1.34 per hour per angler) and 0.23 pound per hour in the previous season. The best fishing was during the month of June when angling quality reached a high of 2.19 fish per hour per angler.

Mallard Pond was fished on by 3 anglers for a total of 1.5 hours but no fish were taken.

Table 6.--General summary of angling results on Rifle River Area lakes in 1953
(For detailed information see Tables 7, 8 and 9)

Lake	Total angler-days	Number angler-days, 0 fish	Percentage of angler-days, 0 fish	Total hours of angling	Total game fish taken	Total pounds of game fish	Total rough fish taken	Total pounds of rough fish	Total catch, all species	Total weight of all fish taken
Devoe Lake	1,253	643	51.3	4,395.5	3,921	821.71	58	61.38	3,979	883.09
Dollar Lake	333	75	22.5	972.5	2,208	355.41	49	21.11	2,257	376.52
Devil's Wash-Basin	23	11	47.8	52.0	59	5.97	29	9.41	88	15.38
Loon Lake	185	69	37.3	514.0	532	128.07	188	34.89	720	162.96
Mallard Pond	3	3	100.0	1.5	0	...	0	...	0	...
North Lake	322	260	80.7	991.5	256	141.97	13	5.88	269	147.85
South Pond	38	17	44.7	97.5	95	21.59	1	0.81	96	22.40
Spring Lake	96	76	79.2	173.5	149	43.15	3	0.50	152	43.65
Teal Lake	17	9	52.9	48.5	69	15.63	0	...	69	15.63
Lake totals for 1953	2,270	1,163	51.2	7,246.5	7,289	1,533.45	341	133.98	7,630	1,667.48
Frogging	17	9	52.9	32.0	36 Frogs	13.00			36 Frogs	13.00

Note: Game fish includes brown and rainbow trout, largemouth bass, smallmouth bass, northern pike, bluegills, pumpkinseeds, rock bass, crappies, and yellow perch. Rough fish include bullheads and suckers.

Table 7.--Angling quality on Rifle River Area lakes in 1953 and comparison with angling quality in 1952.

Lake		HOUR QUALITY			ACRE QUALITY		
		Number per hour	Pound per hour	Number per hour per angler	Number per hour	Pounds per acre	Hours fished per acre
Devoe Lake	1953 (1952)	0.91 (0.74)	0.20 (0.17)	0.88 (0.77)	30.68 (13.72)	6.81 (3.11)	33.89 (18.44)
Dollar Lake	1953 (1952)	2.32 (1.77)	0.39 (0.34)	2.31 (1.78)	174.96 (179.92)	29.19 (35.01)	75.39 (101.74)
Devil's Wash-Basin	1953 (1952)	1.69 (7.14)	0.30 (0.85)	1.46 (7.73)	67.69 (173.08)	11.83 (20.53)	40.00 (24.23)
Loon Lake	1953 (1952)	1.40 (1.98)	0.31 (0.43)	1.25 (2.09)	41.86 (32.38)	9.47 (7.09)	29.88 (16.34)
Mallard Pond	1953 (1952)	0	... (Not fished in 1952)	...	...	...	0.39
North Lake	1953 (1952)	0.27 (0.18)	0.15 (0.10)	0.20 (0.24)	2.83 (1.23)	1.56 (0.70)	10.44 (7.04)
South Pond	1953 (1952)	0.98 (1.16)	0.23 (0.23)	0.98 (1.34)	73.85 (142.31)	17.23 (28.44)	75.00 (122.69)
Spring Lake	1953 (1952)	0.88 (1.77)	0.25 (0.41)	1.15 (1.68)	2.10 (24.53)	0.60 (5.72)	2.40 (13.84)
Teal Lake	1953 (1952)	1.42 (0.90)	0.32 (0.18)	0.79 (0.72)	11.90 (11.90)	2.69 (2.46)	8.36 (13.28)
Average for all lakes	1953 (1952)	1.05 (1.19)	0.23 (0.26)	1.04 (1.25)	22.48 (20.58)	4.91 (4.51)	21.88 (17.33)

Table 8.--Species composition of fish taken from Rifle River Area lakes in 1953

Lake	Large-mouth bass	Small-mouth bass	North-ern pike	Blue-gills	P'seed.	Yellow perch	Rock bass	Black crappies	Rainbow trout	Brown trout	Bull-heads	White sucker
Devoe Lake												
Number	14	83	4	86	26	3,015	193	56	440	4	5	53
Wt. oz.	352.5	1,660.0	182.0	331.0	81.5	5,954.5	655.5	436.0	3,412.4	82.0	40.5	941.5
Dollar Lake												
Number	26	0	0	1,629	150	204	42	157	0	0	49	0
Wt. oz.	243.0	...	...	3,846.0	404.0	452.5	184.0	557.0	...	...	337.5	...
Devil's W.B.												
Number	0	0	0	0	5	32	21	1	0	0	28	1
Wt. oz.	...	...	...	...	6.0	50.0	36.5	3.0	...	...	121.5	29.0
Loon Lake												
Number	6	0	0	325	39	96	3	63	0	0	188	0
Wt. oz.	164.0	...	...	1,130.5	110.5	338.0	12.5	293.5	...	...	526.0	...
North Lake												
Number	5	39	3	23	0	135	46	5	0	0	13	0
Wt. oz.	309.0	934.5	336.0	82.5	...	422.5	137.0	50.0	...	...	94.0	...
South Pond												
Number	1	0	0	66	3	7	18	0	0	0	1	0
Wt. oz.	9.0	...	...	262.0	10.0	24.5	40.0	...	...	...	13.0	...
Spring Lake												
Number	0	0	0	0	3	146	0	0	0	0	3	0
Wt. oz.	...	...	...	...	8.0	682.5	...	...	...	...	8.0	...
Teal Lake												
Number	0	0	0	2	0	67	0	0	0	0	0	0
Wt. oz.	...	...	...	11.0	...	...	...	...	...	...	...	...
Totals, Number												
1953 Wt. oz.	52	122	7	2,131	226	3,702	323	282	440	4	287	54
	1,077.5	2,594.5	518.0	5,663.0	620.0	8,163.5	1,065.5	1,339.5	3,412.4	82.0	1,140.5	970.5

Table 9.--Combined totals for all Rifle River Area lakes covering a 9-year period, 1945 through 1953

Year	Total angler-days	Total hours of angling	Total number of fish taken	Total weight of fish taken, pounds
1945	2,608	9,303.5	6,192	2,247.13
1946	1,867	5,826.5	5,159	1,523.89
1947	1,922	6,132.0	4,538	1,207.06
1948	2,014	6,996.0	4,042	1,242.75
1949	2,536	7,790.5	4,444	1,675.00
1950	2,427	7,577.0	8,200	2,116.48
1951	1,657	5,348.5	6,469	1,469.45
1952	1,983	5,925.0	7,036	1,541.88
1953	2,270	7,246.5	7,630	1,667.48
Combined totals for 8 years	19,284	62,145.5	53,709	14,691.12

Small game hunting

During the 1953 small game season census records show a total of 1,095 hunter days, 3,094.0 hours of hunting effort, and a bag of 357 game birds and animals for a total weight of 523.06 pounds (Table 10). These figures represent an increase over the 1952 season of 1.5 percent (16) in hunter days, a decrease in hours of 3.7 percent (118.5), and a drop in the total kill of 24.4 percent, or 115 game birds and animals. Also, the number of hunter days recorded were the highest on record, and hours of hunting and bag totals were second only to those compiled for 1952.

The scarcity of ruffed grouse and woodcock in hunter's game bags was the factor that contributed most to the drop from 1952 levels in the number of small game species shot. However, the decline in grouse totals of 42.3 percent (140) and woodcock of 34.4 percent (21) was somewhat offset by an increase of 42.2 percent (30) in the number of snowshoe hares bagged, 64.3 percent (9) in the number of cottontail rabbits, and 12.5 percent (5) in total ducks killed (Table 11). Hunters filled their game bags at the rate of 0.12 (0.17 pound) game birds and animals for each hour they spent in the field.

Average weights for all species bagged by hunters in 1953, except ducks, were slightly lower than those recorded in 1952. Grouse averaged 1.13 pounds as compared to 1.23 pounds in 1952, woodcock 0.41 and 0.46, ducks 2.25 and 2.21, cottontails 2.27 and 2.44, and snowshoes 2.37 in 1953 and 2.69 the year before.

Table 10.--Weekly summary of small game hunting on the Rifle River Area in 1953

Weekly period	Total hunter-days	Total hours of hunting	Number and weight of game birds and animals										TOTALS		
			Grouse		Woodcock		Ducks		Cottontails		Snowshoes		Number	Pounds	
			Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds			
Jan. 1-2	0
3-9	22	66.0	...	...	...	...	...	...	...	...	9	23.00	9	23.00
10-16	0	...	...	...	...	...	...	...	...	...	...	...	...	...
17-23	6	9.0	...	...	...	...	...	...	...	...	5	8.50	5	8.50
24-30	5	10.0	...	...	...	...	...	...	...	...	1	1.75	1	1.75
31-Feb. 6	10	20.0	...	...	...	...	...	...	...	...	1	2.50	1	2.50
Feb. 7-13	7	19.0	...	...	...	...	...	...	...	...	1	2.25	1	2.25
14-20	11	32.5	...	...	...	...	...	...	...	...	4	9.50	4	9.50
21-27	10	28.0	...	...	...	...	...	...	...	...	4	10.25	4	10.25
28-Mar. 6	8	20.5	...	...	...	...	...	...	...	...	2	4.75	2	4.75
Oct. 1-2	122	445.0	49	58.09	3	1.25	7	17.47	2	4.38	5	13.12	66	94.31	
3-9	314	1,000.0	65	68.62	13	4.92	7	12.75	3	4.62	3	8.12	91	99.03	
10-16	210	540.0	38	42.88	5	2.16	1	2.19	3	6.84	0	...	47	54.07	
17-23	140	332.0	16	18.00	14	5.88	3	8.25	0	...	2	5.69	35	37.82	
24-30	55	174.5	11	13.56	1	0.45	4	6.81	2	5.75	5	10.69	23	37.26	
31-Nov. 6	63	175.5	7	8.31	4	1.68	5	10.06	1	2.19	8	18.43	25	40.67	
Nov. 7-13	54	99.0	5	6.12	...	...	13	32.31	...	...	1	2.00	19	40.43
14-20	1	5.0	...	...	...	...	...	...	...	...	1	2.50	1	2.50
21-27	44	4.5	...	...	...	...	...	...	...	...	3	7.25	3	7.25
28-Dec. 4	2	5.0	...	...	...	...	...	...	...	...	2	5.19	2	5.19
Dec. 5-11	16	31.0	...	...	...	...	...	...	3	8.00	3	7.00	6	15.00
12-18	16	23.0	...	...	...	...	...	...	...	...	7	16.31	7	16.31
19-25	9	32.5	...	...	...	...	...	...	...	...	4	9.25	4	9.25
26-31	10	22.0	...	...	...	...	...	...	...	...	...	...	...	...
Totals 1953	1,095	3,094.0	191	215.58	40	16.34	40	89.84	14	31.78	71	168.05	356	521.59	
													↓	357	523.06

↓ 1 squirrel

Table 11.--A summary of 9 years of small game hunting on the Rifle River Area

Year	Total hunter- days	Total hours of hunting	Number taken					Total	Total weight in pounds
			Ducks	Grouse	Woodcock	Rabbits ¹ ↓	Others ² ↙		
1945	325	662.5	25	51	8	3	4	91	163.87
1946	282	694.0	24	39	45	4	13	125	308.19
1947	374	941.5	17	64	28	5	1	115	145.72
1948	306	696.0	6	84	31	4	4	129	190.75
1949	435	1,112.5	72	116	18	11	0	217	349.24
1950	500	1,624.5	38	197	42	53	2	332	489.50
1951	559	1,540.5	32	147	24	51	0	254	403.30
1952	1,079	3,212.5	35	331	61	44	2	472	637.80
1953	1,095	3,094.0	40	191	40	85	1	357	523.06
Totals for 9 years	4,955	13,578.0	289	1,220	297	260	27	2,092	3,211.43

¹↓ Includes snowshoes and cottontails.

²↙ Includes pheasants, raccoon, mink, and squirrels.

Rifle deer hunting

During the 1953 rifle season a total of 4,445 deer hunters spent 21,879.5 hours in the field, and killed 141 deer including 64 antlered bucks. These totals were 65.6 percent (2,918) above 1952 tabulations for hunter days, 70.6 percent (15,456.0) higher in hours of hunting time, 46.1 percent (65) higher in total deer bagged, and showed an increase of 56.2 percent (36) in the number of bucks killed (Table 12). They also represented a new all-time high in deer hunting activity and total kill, but the percentage of successful hunter days dropped from 5.0 percent for all deer in 1952 to 3.2 percent in 1953, and for bucks only, from 1.8 percent to 1.4 percent. However, on the basis of both antlered and antlerless deer 1953 exceeded the 1952 rifle season in hunter success, although when calculated for bucks alone it was the poorest season in Area history when considering the ratio of hunter days to bucks killed (Table 13). As usual the opening day of the season was the most rewarding to rifle hunters with a recorded kill of 25 (39.1 percent) of the total bucks removed. The heaviest deer taken in 1953 weighed 175 pounds, the lightest 27 pounds, and largest rack of antlers had a total of 11 points. Greatest hunting activity occurred on the first of December when a record number of rifle hunters (590) took advantage of the opening of the second consecutive season on antlerless deer. It was also on this day that the only hunting accidents occurred with one hunter being shot in the heel and an automobile windshield being broken by stray bullets.

Bow and arrow deer hunting

The 1953 archery season set new Area records in hunter days, total hours of hunting time, and number of deer killed. Hunter days were 29.3 percent (128) above 1952 totals, hours increased by 32.3 percent (579.5), and the kill of deer was 50.0 percent (2) above the number recorded for the previous year. These increases reflect an upward trend in bow and arrow hunting that began in 1951 after a 6-year period of comparatively light hunting pressure (Table 13).

Trapping in 1953

Fewer trappers made use of the Rifle River Area in 1953 than in the previous year. Total permits issued for all types of trapping dropped from 116 in 1952 to 88 during the current season. This 24.1 percent decrease in trapping continued a downward trend which followed the 1951 high when 144 permits were issued (Tables 14 and 15). Trapper success also dropped below that of the previous year, falling to an average of only 1.7 (8.2 pounds) animals for each permit issued as compared to 2.2 (9.7 pounds) in 1952. Nor was this decline in fur harvest limited to a single species or season. A total of 7 (41.2 percent) fewer beaver, 89 (39.6 percent) muskrats, and 7 (63.6 percent) mink, added up to a 41.2 percent decrease in total fur harvest as compared to a 24.1 percent reduction in the number of permits issued, and only 7.0 percent fewer trapper nights. From this it would seem that although the fewer trappers who made use of the Area made a comparatively greater effort to fill their stretching boards they were not rewarded for their extra effort.

Table 12.--Miscellaneous daily statistics for the
1953 rifle deer hunting season

Date	Total hunter- days	Total hours of hunting	Bucks killed	Bucks reported seen	Other deer reported seen
Nov. 15	343	2,256.5	25	125	1,562
16	338	1,813.0	9	40	981
17	319	1,756.5	9	26	1,086
18	321	1,668.5	9	35	763
19	327	2,188.5	5	28	884
20	259	1,335.5	1	6	405
21	303	1,407.5	2	18	688
22	244	811.5	0	18	273
23	42	170.5	0	0	52
24	44	197.0	1	1	76
25	40	182.0	0	7	63
26	126	505.5	0	10	204
27	227	853.5	0	6	378
28	391	1,544.5	0	4	657
29	333	1,146.5	0	7	484
30	198	716.5	1	8	325
Dec. 1	590	3,326.0	2	8	916
Totals 1953	4,445	21,879.5	64	347	9,797

Table 13.--Deer hunting statistics covering a 9-year period, 1945 through 1953

Year	RIFLE HUNTING				BOW AND ARROW HUNTING			COMBINED TOTALS		
	Total hunter- days	Percentage hunter-days successful	Total hours of hunting	Number killed	Total hunter- days	Total hours of hunting	Number killed	Total hunter- days	Total hours of hunting	Number killed
1945	1,923	2.8	9,346.0	54	9	20.5	1	1,932	9,366.5	55
1946	2,159	2.4	10,268.0	51	44	132.5	1	2,203	10,400.5	52
1947	1,921	2.5	8,806.0	48	47	142.5	0	1,968	8,948.5	48
1948	1,784	1.8	7,915.0	32	44	114.0	0	1,828	8,029.0	32
1949	1,535	2.3	6,985.0	36	34	54.5	1	1,569	7,039.5	37
1950	1,519	2.6	7,098.5	40	28	45.5	0	1,547	7,144.0	40
1951	1,226	1.8	5,020.5	22	252	1,060.5	3	1,478	6,081.0	25
1952	1,527	5.0	1.8 ¹ 6,423.5	76 ²	309	1,212.5	2	1,836	7,636.0	78 ²
1953	4,445	3.2	1.4 ³ 21,879.5	141 ³	437	1,792.0	4	4,882	23,671.5	145 ³
Totals for 9 years	18,039	...	83,742.0	500	1,204	4,574.5	12	19,243	88,316.5	512

¹Percentage of successful hunter days for bucks only.

²Includes 40 does and 8 antlerless bucks due to special season in 1952.

³Includes 77 antlerless deer due to special season in 1953.

Table 14.--1953 trapping statistics for the Rifle River Area

Period or date	Number of permits issued	Number of traps used	Total trap nights	Muskrat		Mink		Beaver		Totals	
				Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds (all animals)
(Beaver season)											
March 20-April 4 (Muskrat season)	48	232	244					10	422.50 ¹	10	422.50
Nov. 15											
16	1	60	60	10	23.25					10	23.25
17	1	80	80	10	23.00					10	23.00
18	2	112	112	6	13.50					6	13.50
19	2	112	112	7	13.50	1	1.75			8	15.25
20	0	...	...	...	...	...	...			...	...
21	4	167	304	13	27.50	1	2.75			14	30.25
22	3	27	27	2	6.00					2	6.00
23	3	155	308	13	27.00					13	27.00
24	3	42	56	16	34.62					16	34.62
25	3	155	280	11	24.62					11	24.62
26	3	42	54	11	16.50					11	16.50
27	1	125	250	4	7.69					4	7.69
28	0	...	...	...	...					...	...
29	2	139	278	8	17.25					8	17.25
30	0	...	...	...	...					...	...
Dec. 1	0	...	...	...	...					...	...
2	1	14	42	4	10.00					4	10.00
3	1	125	500	3	6.00	2	4.31			5	10.31
4	1	15	30	4	12.00					4	12.00
5	1	15	15	0	...					...	...
6	1	125	375	3	5.50					3	5.50
7	0	...	...	...	...					...	...
8	2	139	292	1	2.12					1	2.12
9	0	...	...	...	...					...	...
10	1	15	30	2	5.00					2	5.00
11	2	140	390	4	8.81					4	8.81
12	1	15	15	0	...					...	...
13	0	...	...	...	...					...	...
14	0	...	...	...	...					...	...
15	1	13	39	4	8.00					4	8.00
Totals	88	2,064	3,893	136	291.88	4	8.81	10	422.50 ¹	150	723.17

¹In addition 3 beaver weighing a total of 86 pounds were taken in the fall on a damage control permit.

Table 15.--A summary of trapping results on the Rifle River Area, 1945 through 1953

Year	Total trapper permits issued	Number taken						Total pelts	Total weight of all animals, pounds	Average number of pelts per permit
		Otter	Beaver	Muskrats	Mink	Raccoon	Foxes			
1945	40	Closed season	Closed season	10	2	2	0	14	42.0	0.35
1946	75	"	"	162	10	0	0	172	393.9	2.29
1947	52	"	"	115	8	1	2	126	294.4	2.42
1948	141	1	20	269	5	9	0	304	1,248.8	2.16
1949	118	0	38	33	7	1	0	79	1,269.4	0.67
1950	86	0	6	193	9	0	0	208	689.2	2.42
1951	144	1	6	167	8	9	0	191	739.1	1.33
1952	116	1	17	225	11	1	0	255	1,122.1	2.20
1953	88	0	10	136	4	0	0	150	723.2	1.70
Totals and averages	860	3	97	1,310	64	23	2	1,499	6,522.1	1.74

Table 16.--General use statistics for the Rifle River Area covering an 8-year period, 1945 through 1952

Year	Total permits issued	Permits issued to sight-seers		Permits issued to anglers		Permits issued to hunters		Permits issued to trappers		Percentage over-all gain or loss over previous year
		Number	Percentage of total	Number	Percentage of total	Number	Percentage of total	Number	Percentage of total	
1945	16,370	9,993	61.0	4,080	24.9	2,257	13.8	40	0.2	
1946	14,717	8,861	60.2	3,294	22.4	2,478	16.9	75	0.5	10.1 loss
1947	16,818	10,543	62.7	3,881	23.1	2,342	13.9	52	0.3	12.5 gain
1948	17,078	10,627	62.2	4,176	24.5	2,134	12.5	141	0.8	1.5 gain
1949	19,443	12,986	66.8	4,335	22.3	2,004	10.3	118	0.6	11.8 gain
1950	19,709	12,454	63.2	5,042	25.6	2,127	10.8	86	0.4	1.3 gain
1951	19,769	13,074	66.1	4,514	22.8	2,037	10.3	144	0.7	0.1 gain
1952	21,167	14,176	67.0	3,959	18.7	2,915	13.8	117	0.6	6.6 gain
1953	24,692	13,478	54.6	5,132	20.8	5,994	24.3	88	0.3	14.3 gain
Totals and average percentages	169,763	106,192	62.6	38,413	22.6	24,297	14.3	861	0.5	...

Activities

In 1953 the general supervision and maintenance of the Rifle River Area properties, formerly under the direction of Basil V. Hughes, were taken over by Arthur W. De Claire, Fisheries Research Technician A. Mr. De Claire moved to the Area on March 14, and immediately thereafter set out to repair and put into operational order the various roads and buildings. To carry out his work a dumptruck and end loader were borrowed from the Lake and Stream Improvement section of the Fish Division, and with this equipment 27 loads of gravel were distributed over Area roads. Also, during March, George Smith was hired to assist in creel census and maintenance work and reported to work on the 23d of that month. Howard Gowing, Fisheries Biologist I, and resident biologist for the Area, moved into the lodge on the 24th of March, Dean McGregor was employed as a creel census clerk on the 20th of April, and David L. Shull moved into the ranch house in June to continue with the biological work on North Lake that he had started the year before under the direction of Fisheries Biologist, Frank F. Hooper.

A total of 170 guest nights were registered at the Rifle River Area lodge in 1953. Meetings held on the Area included the Fish Division's spring staff meeting from April 16 through the 19, and a meeting of the staff of the Lake and Stream Improvement section of the Fish Division was held at the lodge on April 30. Special groups visiting the Area included a group from the University of Michigan under the supervision of Professor Karl F. Lagler, a group of school children from Omer, Michigan, a party of U. S. Soil Conservation men, a party of Game Division men, and a group of Michigan State College professors and students.

Research work outside of regular checking station duties that was engaged in by staff members included marking trout at the Grayling Fish Hatchery, a review of creel census methods under the direction of K. G. Fukano, Fisheries

Biologist II, and creel census expert from Ann Arbor, helping Robert Ellis collect fish specimens from Houghton Creek with the aid of an electric shocker, assisting David L. Shull with his biological work on North Lake, and assisting Duane Howe, Game Division biologist, with experimental work in deer count and sex ratio studies.

Maintenance work consisted of grading and repairing roads, erecting a flagpole at the checking station, repairing fences, painting the checking station and weir shed, installing fish traps in the Gamble Creek weir, and making repairs on the lodge. Maintenance work done outside the Area consisted of cleaning up the public fishing sites on Sage and Long lakes, and picking up the gates at the Au Gres River weir.

INSTITUTE FOR FISHERIES RESEARCH

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