

MONTANA STATE DEPARTMENT OF FISH AND GAME  
FEDERAL AID IN FISH RESTORATION SECTION  
HELENA, MONTANA

JOB COMPLETION REPORT  
INVESTIGATIONS PROJECTS

State of Montana

Project No. F-12-R-5

Name Western Montana Fishery Study

Job No. I

Title Inventory of the Waters of the

Period Covered May 1, 1958 - April 30, 1959

Project Area

Abstract:

Thirty-eight mountain lakes and six streams were surveyed during the summer of 1958. Locations of waters, population sampling effort and fish captured are presented in tabular form. Planting recommendations are given for waters considered worthy of that type of management effort. Temperature readings and down-migrant trap catches are presented for the North Fork of Flint Creek. Population sampling was repeated in Inez, Alva and Rainy Lakes in the Clearwater drainage. Fiducial limits of the average catches per net night from these lakes are listed. Recommendations are made for future lake and stream surveys.

Objectives:

To catalog some of the waters in the project area and to determine their value in the overall fishery management picture. Specifically, the objective of the high-lake surveys was to determine the value of continued or future stocking in some of the high lakes in the Bighole, Bitterroot and Clark Fork drainages, that are now being regularly stocked with hatchery trout. The Georgetown Lake survey was a special case because a creel census was planned on this lake during the summer and winter of 1958 and 1959. Thus, it was desirous to know the species composition, lake size and other physical features of the lake prior to the initiation of the creel census.

The objectives of the stream surveys were as follows: determine present fishery value and species composition prior to channel changing by road constructing agencies -- Joseph and Trail Creeks; determine the need for stocking hatchery trout as requested by the public -- Deep, Twelve Mile and Ten Mile Creeks; determine available spawning area -- North Fork of Flint Creek.

Techniques Used:

During June, July and August, 1958 a total of 38 mountain lakes were surveyed by project personnel. Twenty-seven of these 38 lakes were accessible by trail only and, therefore, pack stock (horses) were utilized to get men and equipment to them. The remaining 11 lakes were accessible by either two or all-wheel drive vehicles.

Those lakes that were considered worthy of fishery investigation, were gill netted with 125-foot, experimental gill nets having graduated stretch mesh sizes from  $1\frac{1}{2}$  to 4 inches. A hand line was used to determine the maximum depth, and the location of the shoal areas of each lake. Sketch maps were drawn of each lake surveyed. This sketch map showed the relative location of the net sets made in the lake, principal aquatic plant beds, tributary and outlet streams, and other important physical features of the lake.

Fish taken in gill nets were sorted as to species, counted, weighed and measured. Scale samples were taken from all trout. These scale samples were forwarded to the Department's fishery laboratory for age and growth analysis. Other gross physical features of each lake were recorded on the Montana Fish and Game Department's standard Lake Survey Form.

Due to its importance as a trout fishery, and because a creel census was being planned for it, Georgetown Lake was surveyed more thoroughly than all other lakes under consideration in this report. A large scale outline map of this lake was pantographed from aerial photographs. A Bendix Depth Recorder, mounted on an outboard motor boat, was used to sound the lake. From the sounding data thus collected, contour lines were drawn on the outline map. Areas of these contours were planimetered and total volume was computed.

A total of 30, 125-foot, overnight gill net sets were made in Georgetown Lake between June 23 and June 27, 1958.

Except for the North Fork of Flint Creek, stream surveys consisted of shocking one or more representative section of each stream with a 220 volt A.C. shocking device. Each stream section so chosen was blocked off at each end with nets. "Shocked" fish were retrieved with insulated dip nets. All fish thus collected were counted, weighed, measured, and scale samples were taken from all trout. These scale samples were sent to the Department's fishery laboratory for age and growth analysis. Gross physical characteristics of each stream were recorded on the Montana Fish and Game Department's standard Stream Survey Form.

The North Fork of Flint Creek, a tributary to Georgetown Lake, was surveyed in an effort to determine its suitability as a spawning stream for trout species in Georgetown Lake. A five mile section of this stream--from Echo Lake to Georgetown Lake--was walked and sketch mapped. Potential spawning areas were noted on the sketch map, and all observed fish species were listed. A standard Stream Survey Form was filled out for this section of the stream.

On July 8, 1958 a minimum-maximum thermometer was submerged in the North Fork of Flint Creek approximately one-quarter mile from its mouth. Temperatures from this thermometer were recorded a total of 48 times between July 9 and September 30, 1958.

A down-migrant fry trap was placed in the North Fork of Flint Creek, near the above mentioned thermometer, and was "fished" for 10 different nights between July 27 and August 20, 1958. This trap, which covered one-half of the stream width, was installed between 6:00 and 10:00 p.m. in the evening and removed the following morning between 7:00 and 10:00 a.m. Fry thus collected were counted and preserved for future identification and examination.

Population sampling was continued for the fourth consecutive season on Inez, Alva and Rainy Lakes, in the Clearwater drainage. Standard net sets were made in the same locations in these lakes as in previous years. Fish captured were weighed, measured and recorded by species. Catch data was summarized for average catch per net night by species and the fiducial limits of these catch figures were computed at the ninety-five percent level.

#### Findings:

Table 1 lists the lakes surveyed during 1958, their location and summary of net catch data.

Of the 18 lakes surveyed in the Bighole drainage, 11 were impounded for irrigation water storage. These lakes are marked with asterisks on Table 1. Dams on these lakes ranged from 8 to 20 feet in height. The stored water is used for late summer agricultural irrigation.

Two of the five lakes surveyed in the Bitterroot drainage during 1948 are impounded, the stored water being used for late summer agricultural irrigation. The two impounded lakes are Como and Lower Twin.

Fifteen lakes were surveyed in the Clark Fork drainage during 1958. These lakes are listed in Table 1.

A total of six streams were surveyed during the summer of 1958. Table 2 lists these streams, along with their size and fish species captured. Of these six streams, only three were surveyed for purposes of determining if they should be stocked with hatchery trout. These streams were: Deep, Ten Mile, and Twelve Mile Creeks.

Trail and Joseph Creeks were surveyed to determine their present fish species composition, and to evaluate them as a fishery prior to some proposed channel changes by the U. S. Bureau of Public Roads.

The Joseph Creek survey revealed that this stream has a predominant population of small eastern brook trout. Its overall fishery value is relatively small. Trail Creek, a tributary to the Bighole River, also has a predominant population of eastern brook trout. However, this stream is easily accessible because of an earth road along most of its length. Its fishery value is considered relatively high.

The North Fork of Flint Creek, a tributary to Georgetown Lake, was surveyed for purposes of determining its use as a potential spawning stream for trout species in Georgetown Lake. This stream flowed throughout the year in 1958. In previous years, it has become dry during the latter part of the summer.

A minimum-maximum temperature station was installed in this stream and temperatures were recorded a total of 48 times between July 9 and September 30, 1958. Table 3 lists the temperature readings and the dates they were taken. All temperatures were recorded between 7:00 and 9:00 a.m. on the days listed.

A down-migrant fish trap, which covered one-half of the stream width was placed in the North Fork of Flint Creek a total of 10 times between July 27 and August 20, 1958. Table 4 lists the periods that the trap was "fished" and the amount of down-migrant fry taken for each period. This trap was "fished" for a total of 119 hours, and 983 down-migrant fry were captured. Although not all of the fry thus captured have been sorted to species at the time of this writing, most of them appear to be cutthroat trout. This is plausible because of the large cutthroat trout population in Georgetown Lake.

The average catch per net night by species, and the fiducial limits of these figures at the 95% level are given on Table 5 for Inez, Alva and Rainy Lakes. These are repeated for the nine most numerous species in the catches on Tables 6 and 7, along with the same information from the 1955, 1956 and 1957 seasons on these lakes. Note that no significant changes have occurred for any of the game species in these lakes during the four years of sampling. A large, significant increase in the catch of yellow perch from Alva Lake occurred in 1958.

Recommendations:

The following survey recommendations are made:

1. Flow measurements in cubic feet per second should be made in the North Fork of Flint Creek periodically throughout the summer months for a period of at least five years.
2. Impounded lakes should be surveyed or re-surveyed at the period of extreme drawdown.
3. To aid in the evaluation of the rehabilitation of Rainy Lake (treated under Project F-24-D-13 in September, 1958), this lake, Alva and Inez should be sampled again after a fish population has been re-established in Rainy. This will likely be in the summer of 1961.

The following stocking recommendations are made:

1. Stocking or other management recommendations should be made only after the lake has been surveyed at extreme low water.
2. Lakes that presently do not have fish in their waters should be left in such a state for future management, unless such a lake could be deemed important to the immediate fishery needs of the surrounding area.
3. No lakes should be stocked with hatchery trout unless they are first surveyed.
4. Only five of the 18 lakes surveyed in the Bighole drainage are recommended for continued or further stocking with hatchery trout. These five lakes are Bond, Boot, Deerhead, Pear, Rainbow and Waukena. Either rainbow or cutthroat trout are recommended for stocking Boot and Pear Lakes, and cutthroat trout only are recommended for stocking Deerhead and Rainbow Lakes. Golden trout are recommended for stocking in Waukena Lake.
5. The remaining 13 lakes surveyed in the Bighole drainage are not recommended for trout stocking at this time.
6. Of the five lakes surveyed in the Bitterroot drainage, Lower Twin is recommended for continued stocking with cutthroat trout. The remaining four lakes surveyed in this drainage are not recommended for trout stocking at this time.
7. Of the 15 lakes surveyed in the Clark Fork drainage during 1958, nine are recommended for continued or future stocking with hatchery trout. These nine lakes are: Upper Barker, Cliff, Georgetown, Meadow Lakes 1,2,4,5, Big Racetrack, and Storm. Rainbow trout is the fish species recommended for stocking in these nine lakes.

Georgetown Lake, which has a predominantly cutthroat population, is recommended for stocking with rainbow trout for the following reasons:

- a. Public opposition to the present cutthroat management.
- b. The fishery's apparent dependence upon artificial stocking of advanced trout fingerlings. This is believed due to a shortage of spawning area and the large redbreasted shiner population in the lake.
- c. The lake's accessibility - it is on an oiled highway.

The remaining six lakes surveyed in the Clark Fork drainage are not recommended for trout stocking at this time.

8. Both Deep and Ten Mile Creeks are recommended for annual stocking with rainbow trout. Due to its small size and lack of adequate accessibility, Twelve Mile Creek is not recommended for stocking.

It is believed that mountain lakes, because of their relative inaccessibility, support only a small portion of the total fishing pressure in the project area at present. However, the ease with which they may be planted from the air, and the attitude of the large segment of the general public who regard planting as a panacea for all fishing ills, results in pressure to plant mountain lakes even before they have been investigated to determine the need and even possible harm that could be done.

It is, therefore, imperative that some mountain lakes within the project area be surveyed each year and the worthy ones put on the planting program. It is not expected that such a mountain lake survey program will result in the elimination of all unnecessary plants. We hope, however, to accomplish the following:

1. Eliminate the potentially harmful plants.
2. Retain the plants which are producing fishing.
3. Add plants where they are deemed necessary.
4. Continue cataloging the waters of the project area.
5. By the fishing produced under points 2 and 3 above, reduce the pressure for a "plant everything" program.

The overall objective may be summarized as follows: Even though present fishing pressure does not warrant it, a regular schedule of mountain lake surveys should be initiated in order to retain a potential in our mountain lake fishery, which may be used in the future when these waters do become essential to the fishery of the project area.

Two months' time for a two-man, pack-string-equipped crew was spent in 1958 to survey 32 of the mountain lakes covered in this report. Survey emphasis was on the Bighole and upper Clark Fork drainages. It is recommended that a minimum of one month be spent on mountain lake survey in the western district by the same type of crew each field season. Survey emphasis should be on lakes in the Bitterroot and Blackfoot drainages in 1959.

With over 300 mountain lakes in the project area, this job will likely never be entirely completed. Because present pressures to plant are usually on the better, more accessible lakes, surveys should also be initiated on those waters. Although this is less economical of time than total survey of a drainage or sub-drainage, our primary objective is to insure proper management of our mountain lake resource, so it will be available for future generations. We should, therefore, concentrate our efforts on the most important parts of that resource.

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Approved by Serge D. Holter

Date April 1, 1959

Table 1. Lakes surveyed and summary of net catch data (lakes listed alphabetically by drainage).

Lake	Location	Drainage	County	Total		Species	No.
				Net Sets	Total Net hrs.		
* Agnes	T4S R10W S4	Bighole	Beaverhead	2	20	Grayling	10
* Anchor	T5S R11W S5	Bighole	Beaverhead	2	36	No catch	0
* Bond	T4S R10W S32	Bighole	Beaverhead	1	19	Cutthroat Eastern brook	2 5
* Boot	T2S R11W S4	Bighole	Beaverhead	2	47	Cutthroat Rainbow Grayling	1 8 1
* Chan	T5S R11W S6	Bighole	Beaverhead	None	None	None	0
Continental	T1N R16W S10	Bighole	Beaverhead	None	None	None	0
Crystal	T1N R16W S2	Bighole	Beaverhead	1	24	Rainbow	10
* Deerhead	T4S R11W S35	Bighole	Beaverhead	1	24	Cutthroat	4
Lion	T1N R16W S15	Bighole	Beaverhead	3	48	No catch	0
Long	T3S R10W S31	Bighole	Beaverhead	None	None	None	0
* May	T5S R11W S6	Bighole	Beaverhead	1	22	Cutthroat	0
Mosquito	T1N R16W S10	Bighole	Beaverhead	None	None	None	0
Mystic	T1N R16W S2	Bighole	Beaverhead	1	24	Rainbow	20
* Pear	T5S R11W S5	Bighole	Beaverhead	2	55	Cutthroat	3
Rainbow	T4S R10W S5	Bighole	Beaverhead	1	24	No catch	0
* Tendoy	T4S R11W S4	Bighole	Beaverhead	None	None	None	0
* Tub	T5S R11W S8	Bighole	Beaverhead	1	22	No catch	0

\* Denotes impounded lake.

(cont'd)

Table 1. (cont'd)

Lake	Location	Drainage	County	Total Net Sets	Total Net hrs.	Species	No.
* Waukena	T3S R11W S27	Bighole	Beaverhead	2	48	No catch	0
* Como	T3N R21W S31	Bitterroot	Ravalli	18	388	Rainbow Whitefish Squawfish Fine-scaled sucker Coarse-scaled su. Columbia River chub	5 21 71 47 141 38
Hope	T1N R16W S9	Bitterroot	Ravalli	1	26	Rainbow	2
* Twin (lower)	T5N R23W S29	Bitterroot	Ravalli	4	77	Cutthroat Rainbow	35 2
No-name	T2N R16W S32	Bitterroot	Ravalli	None	None	None	0
No-name	T2N R16W S33	Bitterroot	Ravalli	None	None	None	0
Barker (upper)	T4N R12W S17	Clark Fork	Deerlodge	None	None	None	0
Barker (lower)	T4N R12W S17	Clark Fork	Deerlodge	1	21	Rainbow	5
Cliff	T6N R28W S18	Clark Fork	Mineral	4	35	Rainbow X Cutthroat	6
* Fisher	T6N R12W S4	Clark Fork	Granite	2	38	Cutthroat Rainbow	13 2
* Georgetown	T5N R14W S23	Clark Fork	Deerlodge	30	619	Cutthroat Rainbow Eastern brook Silver salmon Grayling Fine-scaled su. Red-sided shiner	458 10 77 3 10 2064 124
Meadow #1	T6N R12W S2	Clark Fork	Granite	1	22	Rainbow	5

\* Derwas impounded lake.

(cont'd)

Table 1. (cont'd)

Lake	Location	Drainage	County	Total Net Sets	Total Net hrs.	Species	No.
Meadow #2	T6N R12W S2	Clark Fork	Granite	1	17	Rainbow	1
Meadow #3	T6N R12W S3	Clark Fork	Granite	1	22	Rainbow	1
Meadow #4	T6N R12W S4	Clark Fork	Granite	2	44	Rainbow	1
Meadow #5	T6N R12W S10	Clark Fork	Granite	1	27	No catch	0
Meadow #6	T6N R12W S10	Clark Fork	Granite	None	None	None	0
Moore	T16N R29W S3	Clark Fork	Mineral	2	39	Rainbow Eastern brook	1 49
* Racetrack (Big)	T6N R12W S5	Clark Fork	Granite	4	79	Rainbow	23
Silver	T19N R31W S32	Clark Fork	Mineral	5	95	Eastern brook	92
* Storm	T4N R13W S3	Clark Fork	Deerlodge	2	39	Cutthroat Rainbow	31 16

\* Denotes impounded lake.



Table 2. Streams surveyed and summary of electro-fishing data (streams listed alphabetically by drainage.)

Stream	Drainage	CFS	Sections		Total length all sections	Species	Number
			sampled				
Deep Creek T2N R12W S17 Deerlodge	Bighole	<u>4</u> 20	1		200 feet	Eastern brook Cutthroat Cottus Ling Dace Fine-scaled sucker	7 4 14 1 1 6
Joseph Creek T2S R18W S16 Beaverhead	Bighole	<u>4</u> 5	2		400 feet	Eastern brook Cutthroat Cottus	117 2 25
Ten Mile Creek T3N R12W S4 Deerlodge	Bighole	<u>4</u> 10	1		200 feet	Eastern brook Cutthroat Cottus Fine-scaled sucker	33 1 16 2
Trail Creek T2S R17W S23 Beaverhead	Bighole	<u>4</u> 10	1		150 feet	Eastern brook Ling Dace Cottus	13 1 3 7
Twelve Mile Creek T3N R12W S17 Deerlodge	Bighole	<u>4</u> 4	1		200 feet	Eastern brook Cutthroat Cottus	11 18 17
N. F. Flint Creek T5N R13W S7 Deerlodge	Clark Fork	<u>4</u> 5	none		none	Eastern brook * Cutthroat * Red-sided shiner*	Not recorded Not recorded Not recorded

\* Observed

\*\* Taken by angling

Table 3. Minimum-maximum temperature readings for the North Fork of Flint Creek.  
(All temperature readings in degrees Fahrenheit).

Month	Day	Minimum	Maximum	Month	Day	Minimum	Maximum
July	9	50	58	August	10	54	62
	10	50	61		12	60	64
	11	51	61		13	53	66
	12	52	63		14	52	65
	14	49	63		16	52	66
	15	46	56		17	52	66
	16	45	61		20	53	65
	18	53	64		21	54	65
	19	50	58		22	54	65
	20	50	58		24	52	64
	21	52	62		25	52	63
	22	52	62		27	52	64
	23	56	64		28	52	63
	24	55	63		29	52	62
	25	54	65		31	47	61
	26	54	62	September	5	44	59
	27	54	62		6	44	59
	28	54	63		9	47	60
	29	54	65		11	42	61
August	3	52	62		18	44	62
	5	51	60		20	44	56
	6	52	62		24	38	55
	9	54	63		30	40	52

Table 4. Down-migrant fry taken in trap on North Fork of Flint Creek, 1958 (trap covered one-half of stream width).

Date	SET	Time	Date	LIFTED	Time	Total hrs.	
						"fished"	Number Fry
July 25	9	p.m.	July 26	7	a.m.	10	60
July 27	10	p.m.	July 28	8	a.m.	10	27
August 1	10	p.m.	August 2	10	a.m.	12	139
August 2	7	p.m.	August 3	8	a.m.	13	181
August 3	10	p.m.	August 4	9	a.m.	11	380
August 7	6	p.m.	August 8	8	a.m.	14	114
August 12	7	p.m.	August 13	7	a.m.	12	10
August 13	7	p.m.	August 14	8	a.m.	13	27
August 16	8	p.m.	August 17	8	a.m.	12	20
August 19	8	p.m.	August 20	8	a.m.	12	25
Totals						119	983

Table 5. Average catch per net set and fiducial intervals at the 95% confidence level, Inez, Alva and Rainy Lakes - July 7-12, 1958.

Lake	No. Sets	Ct	Dv	KOK	Wf	CRC	SQ	FSu	CSu Col.	YP	PS	Rb
Inez	20	.2 (0.0-0.5)	0.6 (0.1-1.1)	0.1 (0.0-0.2)	14.4 (5.2-23.6)	0.2 (0.1-0.3)	4.4 (2.4-6.4)	1.4 (0.1-2.7)	3.1 (1.3-4.9)	7.0 (2.8-11.2)	0.1 (0.0-0.2)	0.1 (0.0-0.2)
Alva	20	0.6 (0.1-1.1)	1.5 (0.5-2.5)	0.1 (0.0-0.2)	4.5 (1.9-7.1)	2.1 (0.6-3.6)	11.2 (4.4-18.0)	3.1 (1.6-4.5)	2.2 (0.5-3.9)	16.5 (13.5-19.5)	None (0.0-0.2)	0.1 (0.0-0.2)
Rainy	10	0.2 (0.0-0.5)	None	None	6.8 (3.0-10.6)	3.9 (0.8-7.0)	11.3 (4.0-16.6)	6.3 (4.0-8.6)	1.0 (0.2-1.8)	9.5 (4.0-15.0)	None	None

Table 6. Average catch per net set and fiducial intervals at the 95% confidence level -- Inez, Alva and Rainy Lakes -- spring netting 1955, 1956, 1957 and 1958.

Lake	Year	Ct	Dv	Wf	YP	PS
Inez	1955	0.1 (0.0-0.3)	0.3 (0.0-0.6)	6.9 (3.9-9.9)	1.7 (0.2-3.2)	None
	1956	None	0.7 (0.4-1.0)	7.3 (4.0-10.6)	9.5 (3.2-15.8)	0.1 (0.0-0.3)
	1957	0.1 (0.0-0.1)	0.8 (0.4-1.2)	8.6 (6.1-11.1)	9.7 (1.7-17.7)	0.1 (0.0-0.1)
	1958	0.2 (0.0-0.5)	0.6 (0.1-1.1)	14.4 (5.2-23.6)	7.0 (2.8-11.2)	0.1 (0.0-0.2)
Alva	1955	0.4 (0.0-0.9)	0.6 (0.2-1.0)	2.8 (1.0-4.6)	0.3 (0.0-0.7)	None
	1956	0.1 (0.0-0.3)	0.9 (0.5-1.3)	5.0 (3.3-6.7)	1.6 (0.8-2.4)	None
	1957	0.6 (0.2-1.0)	1.4 (0.5-2.3)	6.0 (3.7-8.3)	1.4 (0.0-2.8)	None
	1958	0.6 (0.1-1.1)	1.5 (0.5-2.5)	4.5 (1.9-7.1)	16.5 (13.5-19.5)	None
Rainy	1955	0.6 (0.0-1.3)	0.9 (0.0-1.8)	9.3 (5.2-13.4)	0.9 (0.2-1.6)	None
	1956	0.5 (0.0-1.0)	1.2 (0.1-2.3)	10.6 (8.1-13.1)	5.6 (0.0-15.6)	None
	1957	0.8 (0.0-1.7)	1.4 (0.1-2.8)	16.4 (9.6-23.2)	2.1 (0.0-4.8)	None
	1958	0.2 (0.0-0.5)	None	6.8 (3.0-10.6)	9.5 (4.0-15.0)	None

Table 7. Average catch per net set and fiducial intervals at the 95% confidence level -- Inez, Alva and Rainy Lakes -- spring netting 1955, 1956, 1957 and 1958.

Lake	Year	SQ	CRC	FSu	CSu Col.
Inez	1955	6.0 (3.2-8.6)	0.9 (0.2-1.6)	2.9 (0.4-5.4)	0.4 (0.0-0.8)
	1956	4.2 (1.9-6.5)	1.4 (0.4-2.4)	1.2 (0.2-2.2)	2.5 (0.6-4.4)
	1957	7.8 (2.1-13.5)	1.3 (0.0-2.7)	1.1 (0.1-2.1)	9.7 (0.0-2.0)
	1958	4.4 (2.4-6.4)	0.2 (0.1-0.3)	1.4 (0.1-2.7)	3.1 (1.3-4.9)
Alva	1955	5.2 (3.0-7.4)	0.8 (0.1-1.5)	2.2 (1.1-3.3)	0.5 (0.1-0.5)
	1956	9.9 (4.7-15.1)	1.4 (0.4-2.4)	4.6 (2.7-6.5)	2.6 (0.3-4.9)
	1957	7.2 (2.7-11.7)	1.8 (0.3-3.3)	3.8 (2.2-5.4)	1.3 (0.3-2.3)
	1958	11.2 (4.4-18.0)	2.1 (0.6-3.6)	3.1 (1.6-4.5)	2.2 (0.5-3.9)
Rainy	1955	5.4 (2.4-8.4)	2.6 (0.4-4.8)	3.7 (1.3-6.1)	2.3 (0.4-4.2)
	1956	5.2 (1.6-8.8)	4.9 (0.0-10.1)	4.5 (1.6-7.4)	2.7 (0.7-4.7)
	1957	4.7 (2.4-7.0)	4.3 (0.8-7.8)	3.2 (0.0-6.9)	3.2 (0.4-6.0)
	1958	4.4 (2.4-6.4)	3.9 (0.8-7.0)	1.4 (0.1-2.7)	3.1 (1.3-4.9)