

Post Office Box 47
 Yountville, California 94599
 (707) 944 2443

July 11, 1980

350 East Gobbi Street
 Ukiah, California 95482

Dear Mr. Carroll:

Thank you for your letter requesting information on the fishery of Lake Mendocino. The following is a list of fishes planted in Lake Mendocino by the Department of Fish and Game

<u>Year</u>	<u>Month</u>	<u>Species</u>	<u>Number</u>	<u>Size</u>
1957	NA	LMB	Unknown	Unknown
1957	NA	BCR	Unknown	Unknown
1957	December	RT	130,334	8.4/oz.
1958	April	SH	581	5-6 lbs. each
	June	SH	45,110	130/oz.
	Dec	SH	14,748	4.5-6.0/oz.
1959	Jan	RT	80,064	2.7/oz.
	Feb	RT	225,008	11.5/oz.
	Feb	KOK	100,000	120/oz.
	April	SH	335	5 lbs. each
	April	SH	5,372	4/oz.
	April	RT	108,480	5/oz.
	June	RT	200,025	10.5/oz.
	July	RT	200,014	15.4/oz.
1960	March	RT	400,011	6.0-8.1 oz.
1961	Jan	CCF	840	1.5/oz.
1963	March	RT	100,026	7-18/oz.
1964	Sept	CCF	50,400	45/oz.
	Nov	RT	25,000	15/lb.
	Dec	RT	75,150	15/lb.
1965	Oct	RT	50,250	7.5/lb.
	Nov	RT	14,987	15.2/lb.
	Nov	RT	42,929	9.1-9.5/lb.
1967	NA	SB	16,055	6.5/lb.
		SB	4,086	102.5/lb.
1968	NA	SB	21,200	12/lb.
1969	NA	SB	673	1/lb.
1970	NA	SB	33,450	223/lb.
1971	NA	SB	40,000	200/lb.
		SB	293	6/lb.
1973		SB	1,600	6/lb.
		SB	1,300	2.25/lb.

<u>Year</u>	<u>Month</u>	<u>Species</u>	<u>Number</u>	<u>Size</u>
1974	NA	SB	7,380	12.7/lb.
1975		SB	4,850	6.5/lb.
1976		SB	4,930	4/lb.
1978		CCF	2,500	15.9/lb.
1978		SB	5,028	4.8/lb.
1979		CCF	5,005	7/lb.
1979		SB	7,964	3.5/lb.
1980		SB	4,245	3.5/lb.

RT = rainbow trout
 SH = steelhead
 KOK = Kokanee
 WCF = white catfish
 CCF = channel catfish
 SB = striped bass
 BCR = black crappie
 LMB = largemouth bass

Smallmouth have, threadfin shad, and Mississippi silverside were not introduced by the Department. Smallmouth apparently migrated into the lake from Potter Valley and now comprise a large percentage of the black basses in the lake. Threadfin and silverside were introduced from unknown sources.

Advance have been made in managing the lake with yearling striped bass reared in our hatchery at Elk Grove.

Prior to 1972, stripers of varying sizes were procured from the Tracy Screens or fish rescues and stocked at high densities. No largemouth bass greater than 9 inches was recorded during the 1972 electrofishing survey, and smallmouth bass were observed from the catch. (This may reflect intense [sic] predation in the late sixties due to the absence of TFS). After 1972, stripers were planted at such lower densities, at relatively [sic] sizes, and during the spring from Central Valley Hatchery, Threadfin shad became established in the interim. Adult largemouth bass have been making steady gains each year, and have increased from negligible numbers to the point where, in 1976, they occurred at a rate of 223 YOY/mile Shoreline. Largemouth bass 1976 young-of-the-year occurred 103/mile.

Creel censuses and use counts were conducted at Lake Mendocino from November 1, 1974, to October 31, 1975. The census was run 4 weekend days and 2 to 4 week days 2400 hours. Angler was and harvest from 2400 to 0600 was assumed to be zero. The following use and harvest data were gendered from that census: (Confidence limits have not been determined for these data.)

Total estimated angler hours (all species)	= 96,812 hours
Total estimated SB angler hours	= 72,870 hours
Percent effort directed toward SB	= 79%
Mean largemouth of an SB angler day	= 3.3 hours
Total SB angler days	= 22,028
Mean SB catch/SB angler hour	= 0.064 SB/SS hr.

Mean number SB reeled/SB day	0.21 SB
Mean fork length of reeled SB	22.4 inches
Mean weight of reeled SB	4.48 lbs.
Total estimated catch of SB	4,689 SB
Total estimated weight of SB catch	21,007 lbs.
Total weight reeled SB/surface acre	12.28 lbs./surface acre
1/ Total lbs. SB planted prior to census	6,151 lbs.
Ratio of SB lbs. harvested during census to total SB lbs. planted	3.4/1

1/ Due to problems aging SB in the catch because of variable stocking sizes, dates, and life histories it was impossible to document which plant (s) yielded SB to the 1974-75 catch. Therefore the total pounds of stripers planted prior to the survey was used to calculate a minimum weight-in/weight-out ratio. (Natural reproduction has thus far not been documented at Lake Mendocino; therefore, all recruitment is assumed to have resulted directly from stocked fish.

A total of 219 legal-size (16" T.L.) stripers were trapped in Merwin traps during the spring and fall of 1975 and tagged with \$5.00 reward tags. A significant unknown mortality occurred during this operation; therefore, the angler return rates should be considered as a minimum estimate of the actual harvest rate. From these tags, a total of 20 (9.1%) were caught by anglers while 23 (10.5%) were returned from dead fish. Returns are now considered to be complete.

A total of 117 legal-size stripers was similarly tagged during the fall of 1976. Due to improved trapping and tagging technique, handling mortality is thought to be near zero. To date, only one tag has been returned from a dead fish and 44 (38%) returned from angler-caught fish. Returns are thought to be incomplete.

Stomach contents were examined from 188 angler-caught stripers. The data from these analyses are presented in Table X. Note the high incidence of aquatic insects taken by stripers during the winter, anchovy cut-bait taken during the spring, and a pronounced switch to a piscivorous diet during the fall. No black bass or catfish were recorded from any of these stomachs.

If you have any further questions, please write or call (707) 944 2443.

Sincerely,

Larry E. Week
Fishery Biologist
Region 3

LEW:mb

Enclosure

bcc Lt. McClain