



State of California
The Resources Agency
DEPARTMENT OF FISH AND GAME

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**CENTRAL VALLEY SALMON AND STEELHEAD
HARVEST MONITORING PROJECT**

2000 ANGLER SURVEY

July 2001

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2000 ANGLER SURVEY ^{1/}

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SUMMARY

In October 1992, the Central Valley Project Improvement Act (CVPIA) was signed into law. One objective of the CVPIA is to restore the abundance of natural fish stocks in Central Valley rivers and streams. To achieve this objective, the CVPIA requires the development of restoration actions that ensure sustainable, long-term populations of native anadromous fish stocks. Section 3406(b)(16) of the CVPIA specifies the development of a monitoring and assessment program to evaluate the effectiveness of implemented restoration actions. The Comprehensive Assessment and Monitoring Program (CAMP) was established for this purpose. The CAMP program recommends monitoring of both adult and juvenile fish populations. It was recommended that adult monitoring include spawner returns (escapement) as well as in-river recreational, ocean recreational and commercial harvest estimates.

In 1998, the California Department of Fish and Game (CDFG) began the Central Valley Salmon and Steelhead Harvest Monitoring Project to help enumerate the number of adult chinook salmon and steelhead resulting from natural production in Central Valley rivers and streams. This long-term harvest monitoring project will determine annual estimates of the total in-river harvest. In addition, this project will provide limited harvest data of other anadromous and resident sport fish species.

In 2000, the third year of the project, the Department conducted an angler survey on the Sacramento River and six major tributaries between January 1st and December 31st, 2000. A total of 51,564 anglers was surveyed who spent an estimated 3,531,081 angler-hours sport fishing. Chinook salmon was the target of most anglers surveyed, anglers expended 1,468,269 angler-hours in pursuit of this species. Striped bass was the second most sought species with 1,155,012 angler-hours expended. Anglers also spent 108,672 angler-hours in pursuit of steelhead trout.

Anglers targeting chinook salmon harvested an estimated 70,829 salmon. Angler's targeting striped bass harvested an estimated 59,704 striped bass. While anglers targeting steelhead trout reported keeping few fish, this survey estimates that 1,014 steelhead were harvested.

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INTRODUCTION

Native anadromous fish stocks in many Central Valley rivers and streams have declined to such a critical level that many stocks are currently listed or are candidates for listing under the Endangered Species Act. In an effort to restore the abundance of natural stocks, those salmon and steelhead produced outside of fish hatcheries, the Central Valley Project Improvement Act (CVPIA) was enacted in October, 1992.. The CVPIA calls for the development of restoration actions that ensure long-term sustainable populations of native anadromous fish stocks. To evaluate the effectiveness of these restoration actions, the Comprehensive Assessment and Monitoring Program (CAMP) was developed under Section 3406(b)(16) of the CVPIA.

To assist in the CAMP monitoring program, the California Department of Fish and Game (CDFG) developed the Central Valley Salmon and Steelhead Harvest Monitoring Project. The CDFG has used angler surveys in the past to monitor the harvest of anadromous fish within Central Valley rivers and streams. Unfortunately, no comprehensive or long-term (more than 5 years) surveys have been made on a consistent basis. This project is designed as long-term monitoring program to determine annual estimates of total in-river harvest of sport fish from the Sacramento River and major tributaries. Also, the data will complement and enhance other ongoing CDFG harvest monitoring programs such as Department's adult striped bass, adult sturgeon, and ocean salmon harvest. This project originated in April, 1998 and is into its third year.

STUDY AREA

The study area consists of 554 miles of the Sacramento River and major tributaries which were divided into 18 sampling sections. The rivers comprising the study area are: Sacramento River from Carquinez Bridge upstream to the Anderson-Cottonwood Irrigation District (ACID) Dam in Redding (eight sections); Feather River from its confluence with the Sacramento River at Verona upstream to the Oroville Project Fish Barrier Dam in Oroville (three sections); Yuba River from the confluence with the Feather River near Marysville to one mile upstream of the Hwy. 20 bridge crossing (two sections); American River from its confluence with the Sacramento River at Discovery Park upstream to Nimbus Dam (three sections); San Joaquin River from its confluence with the Sacramento River upstream to Mossdale Crossing near Tracy (one section); South Fork Mokelumne River from its confluence with the San Joaquin River upstream to Interstate 5 Bridge crossing including the North Fork Mokelumne River (two sections); Stanislaus River from McHenry Avenue bridge near Meyers upstream to Goodwin Dam (one section) (Figure 1).

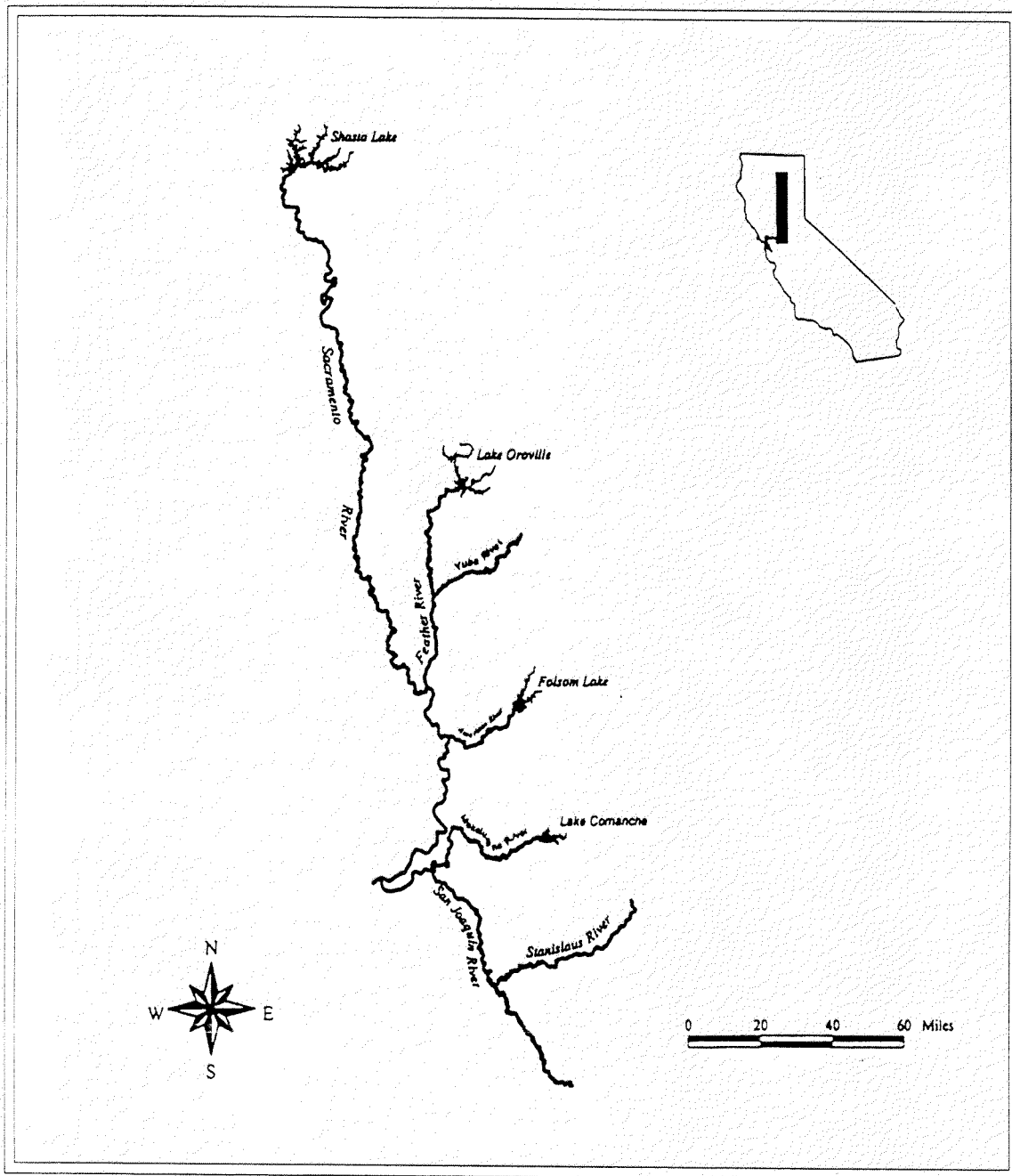


Figure 1. Angler Survey Rivers

PROCEDURES

Statistical Design

A stratified random sample design, based on the design used by the Sacramento River System Sport Fish Inventory (Wixom, 1995), was used to estimate the in-river harvest during the daytime sport fishery. While a night fishery exists in the Central Valley rivers, no effort was made by this survey to evaluate the harvest by nighttime sport anglers.

A total of eighteen sections was sampled. Sixteen of these sample sections ranged in length from 4 to 58 river miles. Two sample sections, that represented unique fisheries, were approximately one river mile in length. Sampling schedules and data summaries were compiled on a monthly basis. Months were arbitrarily chosen as sample periods.

All sample sections were surveyed eight randomly selected times each month - four weekdays and four weekend days. Weekdays and weekend days were placed in separate strata because more angling effort is commonly associated with weekend days.

All sample sections were surveyed by kayaks or power boats with the exception of the Stanislaus River. Kayaks were used in shallow upstream reaches while power boats were used in rivers where tides, wind, and waves demanded the use of more seaworthy boats. The Stanislaus River was sampled by visiting designated access points between McHenry Avenue bridge and Goodwin Dam. If vehicle(s) are present at an access point, then the creel clerk tries to locate the angler(s) by hiking along the stream bank until found. Sampling below McHenry Avenue bridge was not feasible because of the limited public access and difficulty in locating anglers.

For each section surveyed, a random start time and launch location were chosen. Start times were classified as either early or late. An early start time was scheduled to begin ½ hour after sunrise, while a late start time would vary depending on length of section and time of year. Typically, a late start time was scheduled so that the survey would end at or near sunset. Launch locations would either be at the upstream or downstream end of the sections to be surveyed. In those sections where kayaks were used, the launch location was always at the upstream end of the section.

All data collected were linked by river mile. Actual river miles were used for the Sacramento River sections. Each tributary was given a unique number series to identify it from other rivers in the database. The number series assigned to each tributary were as follows: Feather River, 400 series; American River, 500 series; Yuba River, 600 series; San Joaquin River, 700 series; South Fork Mokelumne River, 800 series; North Fork Mokelumne River, 900 series; Stanislaus River, 1000 series. River mile designations were marked in ascending order from downstream to upstream.

Data Collection

Three field data sets were required to calculate use and catch: hourly counts, angler counts, and angler interviews. Hourly counts determined the portion of the whole represented by the sample day angler count. For this survey, hourly counts collected by Wixom (1995) were used. Where hourly count data were unavailable, data sets were developed by using the hourly counts of representative rivers.

On each sampling day, the procedure was to make a high speed pass to the end of the section. This first pass was called the angler count. Data collected during the angler count included: time of observation, location by river mile, number of boats, number of boat anglers, and the number of shore anglers. At the end of the angler count, a second pass was made traveling back through the section to conduct angler interviews. Prior to beginning the interviews, the survey crew determined the feasibility of interviewing all anglers counted during the angler count. If it was determined that this was not feasible, then they randomly chose a N^{th} angler to be interviewed. Once a N^{th} angler interval was chosen, that interval was maintained through the entire section for that survey date. Data collected during each interview included: location by river mile, fishing method, number of hours fished, number of anglers in group, target species, zip code, whether the trip was completed, and the number of fish kept and released by species.

Nine sport fish species found in the Central Valley rivers were considered "Target Species." Those species were: chinook salmon, steelhead, rainbow trout, striped bass, sturgeon (all species), American shad, catfish (all species), sunfish (all species), and black bass (all species) (Table 1). If anglers did not indicate they were fishing for one of the target species, the code "ANY" was used.

The number of fish kept and released was recorded separately for each of the nine target species. All other fish species caught were recorded separately by species in a column labeled "Other" (Table 2).

A length measurement was used to differentiate between steelhead and rainbow trout. All rainbow trout 18 inches or greater were considered to be steelhead. Rainbow trout less than 18 inches were recorded as rainbow trout (McEwan, 1998)¹.

Additional data were collected from five of the nine target species when kept by anglers. The five species were: chinook salmon, steelhead, rainbow trout, striped bass and sturgeon. Each fish was measured to the nearest 0.5 centimeter fork length and inspected for any marks or tags. A total length measurement was taken on sturgeon. All chinook salmon and steelhead caught were inspected for the presence of an adipose fin. A salmon or steelhead missing an adipose fin indicated the fish was of hatchery origin and likely contained a coded-wire tag (CWT) in its head. The head was removed from adipose fin clipped fish and sent to the CDFG Ocean Salmon Project laboratory in Healdsburg for later analysis.

¹D. McEwan, 1998, Senior Biologist, California Department of Fish and Game.

Table 1. Species symbols, common and scientific names of target species observed in the 2000 Angler Survey, January 1 through December 31, 2000.

Family	Target Species	Species Symbol	Common Name	Scientific Name
Salmonidae:	Chinook Salmon	KS	King Salmon	<i>Oncorhynchus tshawytscha</i>
	Steelhead	SH	Steelhead Trout	<i>Oncorhynchus mykiss</i>
	Rainbow Trout	RT	Rainbow Trout	<i>Oncorhynchus mykiss</i>
Moronidae:	Striped Bass	SB	Striped Bass	<i>Morone saxatilis</i>
Acipenseridae:	Sturgeon	ST	White Sturgeon	<i>Acipenser transmontanus</i>
Clupeidae:	American Shad	AS	American Shad	<i>Alosa sapidissima</i>
Ictaluridae:	Catfish	CF	Channel Catfish	<i>Ictalurus punctatus</i>
			White Catfish	<i>Ameiurus catus</i>
			Brown Bullhead	<i>Ameiurus nebulosus</i>
			Black Bullhead	<i>Ameiurus melas</i>
Centrarchidae:	Sunfish	SF	Bluegill	<i>Lepomis macrochirus</i>
			Redear Sunfish	<i>Lepomis microlophus</i>
			Black Crappie	<i>Pomoxis nigromaculatus</i>
	Black Bass	BB	Largemouth	<i>Micropterus salmoides</i>
Other:	Any Species	ANY	The "ANY" designation was used for anglers who indicated they were not fishing for a specific species.	

Table 2. Non-target species symbols, common and scientific names of species observed in the 2000 Angler Survey, January 1 through December 31, 2000.

Family	Common Name	Species Symbol	Scientific Name
Salmonidae:	Brown Trout	BN	<i>Salmo trutta</i>
Cyprinidae:	Common Carp	CP	<i>Cyprinus carpio</i>
	Splittail	SPT	<i>Pogonichthys macrolepidotus</i>
	Squawfish	SQ	<i>Ptychocheilus grandis</i>
Catostomidae:	Sacramento Sucker	SKR	<i>Catostomus occidentalis</i>
Pleuronectidae:	Starry Flounder	STR	<i>Platichthys stellatus</i>

Estimate Calculations

Sample day estimates for angler-hours were created by dividing the observed angler count by the average hourly count within the respective hour interval. The mean of the sample days within a stratum was expanded by the number of days available in the month to obtain the total for the stratum. For each month and section, weekend and weekday strata were combined for total estimated angler-hours as follows:

$$\text{TOTALAH}_i = ((\text{ALLWD}_i * \text{WDAVG}_i) + (\text{ALLWE}_i * \text{WEAVG}_i))$$

TOTALAH_i = total angler-hours (the subscript i denotes the stratum containing a particular combination of section and month).

ALLWD_i and ALLWE_i = number of weekdays and weekend days, respectively available in the month.

WDAVG_i and WEAVG_i = mean of expanded sample-day angler-hours for weekdays and weekend days, respectively.

Hourly count data were not available for all rivers surveyed. For example, Feather River hourly counts were used with Yuba River angler count data; Sacramento River counts were used with San Joaquin River and Mokelumne River angler count data; and American River hourly counts were used with Stanislaus River angler count data.

Angler hour estimates were scaled down to each species by multiplying the total angler-hours by the observed percent distribution of effort for each target species:

$$\text{TOTALAHSP}_{ij} = \text{TOTALAH}_i * \text{FISHHRS}_{ij}$$

TOTALAHSP_{ij} = estimated angler-hours (subscript i denotes the stratum containing a particular combination of section and month, j denotes target species)

TOTALAH_i = total angler-hours (the subscript i denotes the stratum containing a particular combination of section and month).

FISHHRS_{ij} = the ratio of the sample total angler-hours for species "j" divided by the sample total angler-hours for all species in section and month "i".

CPUE was calculated from the sample total number of fish caught divided by the sample total hours fished for each target species within the selected month and section "i". It was assumed that the catch rate was the same for all days of the week. Separate values were calculated for harvested and released fish. Therefore:

$$CPUE_{ij} = \text{SUMFISH}_{ij} / \text{SUMHRS}_{ij}$$

$CPUE_{ij}$ = catch-per-unit-effort for harvested or released target species.

SUMFISH_{ij} = total observed number of fish harvested or released.

SUMHRS_{ij} = total observed angler-hours expended to catch and release a target species.

Catch is the product of the estimated angler-hours and CPUE for target species, section, and month selected, where:

$$\text{CATCH}_{ij} = \text{TOTALAHSP}_{ij} * CPUE_{ij}$$

CATCH_{ij} = Estimated catch for a harvested or released target species.

TOTALAHSP_{ij} = estimated angler-hours (subscript i denotes the stratum containing a particular combination of section and month, j denotes target species)

$CPUE_{ij}$ = catch-per-unit-effort for harvested or released target species.

FINDINGS

Angler surveys were conducted on the Sacramento, Feather, Yuba, American, San Joaquin, Mokelumne, and Stanislaus rivers between January 1 and December 31, 2000. This is the third year of a multi-year project designed to estimate angler effort and harvest. A total of 51,564 anglers was interviewed, and these data form the basis for the angling effort and harvest estimates.

Sport anglers spent 3,531,081 angler-hours fishing in the Central Valley rivers surveyed. Chinook salmon was the species targeted by most them. Anglers began fishing for chinook salmon with the season opener, July 16th, 2000 on most of the surveyed rivers. Steady angling continued through the season closing on January 14th, 2001, with the peak in angling effort occurring in September or October. In 2000, anglers spent a total of 1,468,269 angler-hours fishing for chinook salmon (Table 3). This was a 4% decrease in angling effort when compared to the 1999 survey. Striped bass was the second most targeted species. Anglers began targeting striped bass in the Lower Sacramento near Rio Vista in January, with effort typically peaking in April or May. In 2000, a total of 1,155,012 angler-hours was spent targeting striped bass (Table 3). This is a 8% decrease in angling effort from the 1999 survey.

Again, the most common fish in the creel was chinook salmon, followed by striped bass. This survey estimated that anglers harvested 70,829 chinook salmon and 59,704 striped bass (Table 3). This represents a 14% decrease in salmon harvest and a 17% decrease in the striped bass harvest when compared to the 1999 survey.

The 2000 angling effort for steelhead totaled 108,672 angler-hours. This is a 1% increase when compared to the 1999 survey. Steelhead anglers focused their efforts on the American and Feather Rivers. The peak in angling effort was in January on the American River, but occurred much later, November, on the Feather River. While the majority of steelhead anglers reported releasing most of the fish they caught, this survey does estimate that 1,014 steelhead were harvested in 2000 (Table 3). This is a 14% increase in steelhead harvest when compared to the 1999 survey.

Table 3. Summary of angler effort and catch for selected species on the Sacramento, Feather, American, Yuba, San Joaquin, Mokelumne and Stanislaus rivers for the period January 1, through December 31, 2000.

River Reach: Section #:	Carquinez Br. to Sacramento (1,2)	Sacramento to Colusa (3,4)	Colusa to Red Bluff (5,6)	Red Bluff to Redding (7,8)	American River (9-10,1)	Feather River (11-12,1)	Yuba River (13,14)	San Joaquin River (15)	Mokelumne River (16,17)	Stanislaus River (18)	TOTALS
Total Estimated Angler Hours	883,828	563,833	319,979	235,401	473,300	588,987	62,739	265,447	111,827	25,740	3,531,081
Number Days Sampled	152	182	163	174	278	269	163	68	186	69	1,704
Chinook Salmon											
Angler-Hours	230,269	174,824	218,416	127,239	279,396	425,034	92	0	12,999	0	1,468,269
Estimated Kept	10,279	4,273	9,738	7,944	19,781	18,062	0	0	752	0	70,829
Estimated Released	294	194	381	611	23,342	10,936	0	0	85	0	35,843
Steelhead											
Angler-Hours	73	191	3,837	1,820	66,134	32,412	4,205	0	0	0	108,672
Estimated Kept	0	0	103	62	499	350	0	0	0	0	1,014
Estimated Released	0	0	696	181	4,162	4,643	1,408	0	0	0	11,090
Rainbow Trout											
Angler-Hours	0	0	1,670	104,965	7,205	6,047	51,824	0	0	8,258	179,969
Estimated Kept	0	0	65	581	93	90	202	0	0	0	1,031
Estimated Released	0	0	673	51,056	785	736	19,922	0	0	6,844	80,016
Striped Bass											
Angler-Hours	458,719	291,228	52,311	0	41,725	98,513	0	135,937	68,413	8,166	1,155,012
Estimated Kept	19,670	19,537	4,084	0	1,045	3,697	0	8,248	3,322	101	59,704
Estimated Released	92,123	76,664	10,208	0	4,902	16,300	0	53,779	14,227	409	268,612
Sturgeon (all species)											
Angler-Hours	138,341	56,190	10,552	0	0	1,308	0	22,714	75	0	229,180
Estimated Kept	1,754	208	147	0	0	0	0	222	0	0	2,331
Estimated Released	6,240	45	65	0	0	0	0	1,032	0	0	7,382
American Shad											
Angler-Hours	16,859	8,112	20,892	0	40,784	8,245	5,505	0	0	3,412	103,809
Estimated Kept	8,561	1,793	971	0	7,550	2,260	55	0	0	1,292	22,482
Estimated Released	301	3,083	17,202	0	21,087	6,253	1,709	0	0	1,328	50,963
Catfish (all species)											
Angler-Hours	10,626	11,018	863	0	838	3,369	105	59,470	14,643	244	101,176
Estimated Kept	2,843	1,821	158	0	10	519	0	24,754	10,495	0	40,600
Estimated Released	808	986	0	0	0	449	0	6,282	1,609	0	10,134
Sunfish (all species)											
Angler-Hours	0	0	0	0	0	0	0	339	415	59	813
Estimated Kept	0	0	0	0	0	0	0	484	125	0	609
Estimated Released	0	0	0	0	0	0	0	39	0	0	39
Black Bass (all species)											
Angler-Hours	1,800	163	523	258	1,555	1,661	0	24,154	10,383	193	40,690
Estimated Kept	0	25	123	37	0	63	0	396	579	0	1,223
Estimated Released	1,100	74	0	0	219	350	0	1,223	4,758	0	7,724
Anything											
Angler-Hours	27,147	22,069	5,887	857	39,569	12,482	1,011	17,032	4,487	4,260	134,801
Estimated Kept	4,558	1,934	279	127	1,631	453	0	5,164	951	769	15,866
Estimated Released	1,700	2,519	636	83	1,749	1,354	37	1,404	721	165	10,368

REFERENCES

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APPENDIX A

Description of the River Sections Surveyed

Description of river sections surveyed

River Miles	Section Number	Description	Distance (Miles)
Sacramento River/Delta			
-22 to 12	1.0	Carquinez Bridge to Rio Vista Bridge	35
13 to 59	2.0	Rio Vista Bridge to mouth of American River	48
60 to 89	3.0	American River to Knights Landing (Hwy. 113 Bridge)	29
90 to 143	4.0	Knights Landing to Colusa (River Rd. Bridge)	54
144 to 199	5.0	Colusa to Hamilton City (Hwy. 32 Bridge)	56
200 to 242	6.0	Hamilton City to Red Bluff Diversion Dam	43
243 to 280	7.0	Red Bluff Diversion Dam to Deschutes Road Bridge	38
281 to 298	8.0	Deschutes Road Bridge to ACID Dam at Redding	18
American River			
500 to 504	9.0	Discovery Park to Interstate 80 Bridge	4
505 to 522	10.0	Interstate 80 Bridge to Hazel Avenue Bridge	18
523	10.1	Hazel Avenue Bridge to Nimbus Dam	1
Feather River			
400 to 438	11.0	Verona to Sunset Pumps	39
439 to 458 460 to 467	12.0	Sunset Pumps to Feather River Fish Hatchery (excluding Thermalito River outlet)	28
459	12.1	Thermalito River Outlet (only)	1
Yuba River			
600 to 612	13.0	Marysville to Daguerre Point Dam	13
613 to 622	14.0	Daguerre Point to 1 mile upstream Hwy. 20 Bridge	8
San Joaquin River/Delta			
700 to 757	15.0	Mossdale Crossing to the confluence with the Sacramento River	58
Mokelumne River			
800 to 822	16.0	South Fork - from mouth to Interstate 5 Bridge Crossing	23
900 to 910	17.0	North Fork - from mouth to confluence with South Fork at New Hope Landing	11
Stanislaus River			
1029 to 1058	18.0	Stanislaus River from McHenry Avenue to Goodwin Dam	29

APPENDIX B

Estimated Angler-Hours and Number of Days Sampled

CENTRAL VALLEY HARVEST MONITORING PROJECT

2000 Angler Survey Estimate Summary

TOTAL NUMBER OF ANGLER-HOURS

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10.1	11-12.1	13,14	15	16,17	18	TOTAL
January	30,870	14,633	6,924	9,563	22,345	5,662	4,968	16,667	8,916	2,795	123,343
February	25,736	10,049	1,395	715	14,232	3,756	2,400	11,672	3,504	2,859	76,318
March	48,372	20,063	5,752	7,782	16,474	39,794	1,836	18,402	7,454	2,251	168,180
April	120,129	149,783	38,818	13,560	23,348	43,129	3,698	26,253	16,658	1,105	436,481
May	106,856	126,089	19,874	7,532	25,435	26,665	4,063	23,327	13,716	5,403	358,960
June	33,524	30,672	14,760	4,166	40,943	49,643	5,465	15,568	8,251	3,391	206,383
July	46,527	36,084	43,113	15,536	35,856	104,627	6,924	29,397	6,758	2,532	327,354
August	28,648	50,136	55,231	20,438	28,588	140,401	5,775	18,287	4,244	1,859	353,607
September	124,258	61,830	60,396	61,538	42,970	106,987	4,916	23,158	6,430	3,545	495,828
October	143,983	36,354	35,098	53,726	160,850	47,453	10,811	37,534	19,282	Closed	545,091
November	100,602	15,515	19,227	16,615	40,086	13,536	5,865	45,182	10,208	Closed	266,836
December	74,323	12,825	19,391	24,230	22,173	7,334	6,018	—	6,406	Closed	172,700
TOTAL:	883,828	563,833	319,979	235,401	473,300	588,987	62,739	265,447	111,827	25,740	3,531,081

TOTAL NUMBER OF SAMPLE-DAYS

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10.1	11-12.1	13,14	15	16,17	18	TOTAL
January	13	16	13	14	24	24	12	7	16	8	147
February	16	16	11	10	23	22	10	7	16	8	139
March	12	16	15	16	24	22	10	7	16	8	146
April	13	16	15	16	22	22	13	6	16	7	146
May	13	14	15	15	23	24	7	4	16	8	139
June	12	16	16	15	24	23	16	6	16	8	152
July	15	16	14	15	24	22	16	7	16	6	151
August	10	15	13	13	24	21	15	8	16	8	143
September	12	14	13	15	19	22	16	6	16	8	141
October	11	15	14	16	23	24	16	6	16	Closed	141
November	11	16	11	13	24	21	16	4	12	Closed	128
December	14	12	13	16	24	22	16	—	14	Closed	131
TOTAL:	152	182	163	174	278	269	163	68	186	69	1,704

Notes: Due to inadequate sample size, no estimate calculated for:

December - Section 15

APPENDIX C

Estimated Harvest, Released and Angler-Hours by Target Species

CENTRAL VALLEY HARVEST MONITORING PROJECT

CHINOOK SALMON - 2000

TOTAL ESTIMATED HARVEST

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	0	72	207	78	60	0	0	0	0	0	417
February	0	0	0	0	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	235	0	0	0	0	235
June	0	0	0	0	341	1,090	0	0	0	0	1,431
July	199	287	713	76	539	2,842	0	0	0	0	4,656
August	250	803	1,618	626	303	5,297	0	0	0	0	8,897
September	2,206	1,521	3,524	3,450	1,293	6,266	0	0	0	0	18,260
October	5,888	1,065	1,833	2,055	13,198	2,211	0	0	729	Closed	26,979
November	1,695	402	1,143	496	3,338	121	0	0	23	Closed	7,218
December	41	123	700	1,163	709	0	0	0	0	Closed	2,736
TOTAL:	10,279	4,273	9,738	7,944	19,781	18,062	0	0	752	0	70,829

TOTAL ESTIMATED RELEASED

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	0	0	0	391	0	0	0	0	0	0	391
February	0	0	0	0	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	65	0	0	0	0	65
June	0	0	0	0	768	249	0	0	0	0	1,017
July	0	0	0	0	154	688	0	0	0	0	842
August	50	14	107	14	279	3,123	0	0	0	0	3,587
September	0	11	87	77	727	5,330	0	0	0	0	6,232
October	244	169	87	95	12,608	1,481	0	0	62	Closed	14,746
November	0	0	65	23	6,956	0	0	0	23	Closed	7,067
December	0	0	35	11	1,850	0	0	0	0	Closed	1,896
TOTAL:	294	194	381	611	23,342	10,936	0	0	85	0	35,843

ESTIMATED ANGLER-HOURS

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	0	2,229	6,487	4,960	393	0	0	0	0	0	14,069
February	0	0	0	0	0	0	0	0	0	0	0
March	0	0	0	0	0	63	0	0	0	0	63
April	0	0	0	0	0	2,130	0	0	0	0	2,130
May	0	0	0	0	73	5,760	0	0	0	0	5,833
June	0	0	0	0	8,387	39,360	0	0	0	0	47,747
July	12,219	23,021	37,744	4,811	20,597	99,089	0	0	236	0	197,717
August	12,547	43,771	53,409	15,809	17,667	135,049	74	0	0	0	278,326
September	55,506	58,020	54,149	48,635	30,343	103,590	0	0	448	0	350,691
October	115,758	33,171	32,139	29,501	156,306	38,214	18	0	11,177	Closed	416,284
November	32,964	10,520	16,996	7,867	36,111	1,762	0	0	1,138	Closed	107,358
December	1,275	4,092	17,492	15,656	9,519	17	0	0	0	Closed	48,051
TOTAL:	230,269	174,824	218,416	127,239	279,396	425,034	92	0	12,999	0	1,468,269

CENTRAL VALLEY HARVEST MONITORING PROJECT

STEELHEAD - 2000

TOTAL ESTIMATED HARVEST

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	0	0	0	0	73	21	0	0	0	0	94
February	0	0	0	0	119	0	0	0	0	0	119
March	0	0	0	29	48	0	0	0	0	0	77
April	0	0	0	0	48	24	0	0	0	0	70
May	0	0	0	0	0	0	0	0	0	0	0
June	0	0	0	0	39	17	0	0	0	0	56
July	0	0	0	0	0	19	0	0	0	0	19
August	0	0	0	0	0	29	0	0	0	0	29
September	0	0	0	0	0	54	0	0	0	0	54
October	0	0	43	12	0	88	0	0	0	Closed	141
November	0	0	47	0	58	83	0	0	0	Closed	188
December	0	0	13	21	116	17	0	—	0	Closed	167
TOTAL:	0	0	103	62	499	350	0	0	0	0	1,014

TOTAL ESTIMATED RELEASED

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	0	0	0	0	1,145	730	232	0	0	0	2,107
February	0	0	0	0	1,212	219	0	0	0	0	1,431
March	0	0	0	0	890	505	0	0	0	0	1,395
April	0	0	115	0	139	0	0	0	0	0	254
May	0	0	0	0	0	161	0	0	0	0	161
June	0	0	0	0	0	0	0	0	0	0	0
July	0	0	0	0	0	134	0	0	0	0	134
August	0	0	0	0	0	40	60	0	0	0	100
September	0	0	0	0	232	198	0	0	0	0	428
October	0	0	29	71	0	700	720	0	0	Closed	1,520
November	0	0	308	68	633	1,436	265	0	0	Closed	2,710
December	0	0	244	42	111	522	131	—	0	Closed	1,050
TOTAL:	0	0	696	181	4,182	4,643	1,408	0	0	0	11,090

ESTIMATED ANGLER-HOURS

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	38	0	148	0	19,397	4,140	615	0	0	0	24,338
February	0	0	0	0	11,388	843	92	0	0	0	12,323
March	35	0	0	604	11,226	914	0	0	0	0	12,779
April	0	0	302	0	4,865	826	14	0	0	0	6,007
May	0	0	0	0	147	335	0	0	0	0	482
June	0	0	0	0	194	244	261	0	0	0	699
July	0	0	52	0	0	468	170	0	0	0	690
August	0	0	36	0	35	1,240	90	0	0	0	1,401
September	0	0	0	0	1,864	1,065	15	0	0	0	2,944
October	0	0	898	520	1,065	7,364	1,232	0	0	Closed	11,079
November	0	26	1,246	355	6,051	10,430	1,544	0	0	Closed	19,652
December	0	165	1,155	341	9,902	4,543	172	—	0	Closed	16,278
TOTAL:	73	191	3,837	1,820	66,134	32,412	4,205	0	0	0	108,672

CENTRAL VALLEY HARVEST MONITORING PROJECT

RAINBOW TROUT - 2000

TOTAL ESTIMATED HARVEST

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10.1	11-12.1	13,14	15	16,17	18	TOTAL
January	0	0	0	23	0	0	0	0	0	0	23
February	0	0	0	0	0	0	146	0	0	0	146
March	0	0	0	0	0	0	0	0	0	0	0
April	0	0	0	21	0	0	22	0	0	0	43
May	0	0	51	43	0	28	0	0	0	0	120
June	0	0	0	155	0	0	0	0	0	0	155
July	0	0	0	30	0	0	34	0	0	0	64
August	0	0	0	97	0	0	0	0	0	0	97
September	0	0	0	178	0	64	0	0	0	0	242
October	0	0	14	12	74	0	0	0	0	Closed	100
November	0	0	0	11	19	0	0	0	0	Closed	30
December	0	0	0	11	0	0	0	0	0	Closed	11
TOTAL:	0	0	65	581	93	90	202	0	0	0	1,031

TOTAL ESTIMATED RELEASED

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10.1	11-12.1	13,14	15	16,17	18	TOTAL
January	0	0	15	2,243	281	21	1,251	0	0	2,587	6,398
February	0	0	0	86	0	0	438	0	0	1,564	2,088
March	0	0	102	2,563	71	134	772	0	0	290	3,932
April	0	0	63	6,742	48	240	1,267	0	0	0	8,358
May	0	0	51	5,544	97	0	508	0	0	0	6,198
June	0	0	0	2,064	0	0	843	0	0	612	3,319
July	0	0	105	4,304	0	0	2,771	0	0	409	7,589
August	0	0	216	2,022	139	140	1,255	0	0	586	4,358
September	0	0	0	7,084	93	0	2,829	0	0	796	10,802
October	0	0	43	12,072	0	116	3,684	0	0	Closed	15,915
November	0	0	35	3,381	58	15	2,241	0	0	Closed	5,730
December	0	0	43	2,951	0	70	2,265	0	0	Closed	5,329
TOTAL:	0	0	673	51,056	785	736	19,922	0	0	6,844	80,016

ESTIMATED ANGLER-HOURS

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10.1	11-12.1	13,14	15	16,17	18	TOTAL
January	0	0	44	4,543	356	89	4,297	0	0	2,676	12,005
February	0	0	12	449	166	109	2,308	0	0	1,585	4,629
March	0	0	204	6,991	542	368	1,587	0	0	871	10,563
April	0	0	205	13,471	1,145	891	3,684	0	0	270	19,666
May	0	0	101	7,532	1,097	267	3,089	0	0	72	12,158
June	0	0	0	4,125	535	0	1,313	0	0	522	6,495
July	0	0	393	10,634	835	76	5,768	0	0	691	18,397
August	0	0	306	4,586	677	995	5,610	0	0	542	12,716
September	0	0	0	12,712	833	561	4,901	0	0	1,029	20,036
October	0	0	253	23,664	239	365	9,099	0	0	Closed	33,620
November	0	0	13	8,304	379	745	4,321	0	0	Closed	13,762
December	0	0	139	7,954	401	1,581	5,847	0	0	Closed	15,922
TOTAL:	0	0	1,670	104,965	7,205	6,047	51,824	0	0	8,258	179,969

CENTRAL VALLEY HARVEST MONITORING PROJECT

STRIPED BASS - 2000

TOTAL ESTIMATED HARVEST

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	636	13	0	0	0	0	0	486	344	0	1,479
February	62	0	0	0	15	0	0	140	149	0	366
March	853	291	42	0	63	1,619	0	275	263	0	3,406
April	5,745	10,150	3,061	0	330	1,624	0	1,223	464	0	22,597
May	3,392	8,198	308	0	111	369	0	1,484	414	72	14,358
June	791	709	215	0	106	0	0	81	116	0	2,018
July	339	36	74	0	255	37	0	230	74	0	1,045
August	301	42	252	0	71	48	0	106	65	29	914
September	746	11	61	0	21	0	0	593	49	0	1,481
October	904	39	58	0	73	0	0	852	359	Closed	2,285
November	3,719	13	0	0	0	0	0	2,768	732	Closed	7,232
December	2,182	35	13	0	0	0	0	—	293	Closed	2,523
TOTAL:	19,670	19,537	4,084	0	1,045	3,697	0	8,248	3,322	101	59,704

TOTAL ESTIMATED RELEASED

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	2,942	51	0	0	38	0	0	1,021	216	0	4,268
February	174	8	0	0	0	23	0	202	123	0	530
March	1,286	281	0	0	85	2,076	0	868	972	0	5,568
April	13,965	25,875	3,133	0	624	7,911	0	3,981	1,947	0	57,436
May	26,779	35,622	1,636	0	721	2,930	0	7,402	1,465	0	76,555
June	9,077	10,350	2,996	0	862	953	0	2,034	1,379	0	27,651
July	5,570	2,044	2,208	0	618	1,460	0	6,201	3,081	409	21,591
August	4,076	1,488	74	0	1,132	832	0	1,743	1,794	0	11,139
September	11,155	469	161	0	455	60	0	6,975	662	0	19,937
October	3,100	469	0	0	387	21	0	10,456	1,050	Closed	15,463
November	6,515	0	0	0	0	0	0	12,896	1,019	Closed	20,430
December	7,484	7	0	0	0	34	0	—	519	Closed	8,044
TOTAL:	92,123	76,664	10,208	0	4,902	16,300	0	53,779	14,227	409	268,612

ESTIMATED ANGLER-HOURS

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	13,207	2,224	0	0	339	970	0	9,548	7,740	74	34,102
February	1,282	122	173	0	100	2,004	0	2,012	2,667	937	9,297
March	12,336	6,461	340	0	2,192	36,469	0	9,952	5,626	593	73,969
April	102,214	126,124	33,276	0	12,409	37,236	0	14,670	13,513	393	339,835
May	82,233	117,271	7,336	0	5,040	14,247	0	12,512	8,377	1,059	248,075
June	25,276	23,121	5,161	0	4,722	2,781	0	6,150	3,724	1,304	72,239
July	22,690	6,525	3,499	0	5,200	2,565	0	6,919	2,911	1,688	51,997
August	10,852	2,786	1,036	0	4,904	1,022	0	2,971	1,673	966	26,210
September	59,531	1,574	869	0	4,430	257	0	14,713	1,956	1,152	84,482
October	25,149	2,100	390	0	1,518	170	0	19,266	5,828	Closed	54,421
November	53,231	1,066	0	0	0	188	0	37,224	8,648	Closed	100,357
December	50,718	1,854	231	0	871	604	0	—	5,750	Closed	60,028
TOTAL:	458,719	291,228	52,311	0	41,725	98,513	0	135,937	68,413	8,166	1,155,012

CENTRAL VALLEY HARVEST MONITORING PROJECT

STURGEON - 2000

TOTAL ESTIMATED HARVEST

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	175	9	0	0	0	0	0	50	0	0	234
February	237	44	0	0	0	0	0	78	0	0	359
March	91	55	32	0	0	0	0	0	0	0	178
April	312	100	101	0	0	0	0	31	0	0	544
May	0	0	14	0	0	0	0	0	0	0	14
June	0	0	0	0	0	0	0	0	0	0	0
July	70	0	0	0	0	0	0	0	0	0	70
August	0	0	0	0	0	0	0	0	0	0	0
September	105	0	0	0	0	0	0	0	0	0	105
October	79	0	0	0	0	0	0	0	0	Closed	79
November	312	0	0	0	0	0	0	63	0	Closed	375
December	373	0	0	0	0	0	0	—	0	Closed	373
TOTAL:	1,754	208	147	0	0	0	0	222	0	0	2,331

TOTAL ESTIMATED RELEASED

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	345	0	0	0	0	0	0	174	0	0	519
February	598	0	25	0	0	0	0	202	0	0	825
March	841	12	11	0	0	0	0	0	0	0	864
April	614	33	29	0	0	0	0	94	0	0	770
May	139	0	0	0	0	0	0	0	0	0	139
June	480	0	0	0	0	0	0	0	0	0	480
July	211	0	0	0	0	0	0	57	0	0	268
August	40	0	0	0	0	0	0	26	0	0	66
September	632	0	0	0	0	0	0	0	0	0	632
October	79	0	0	0	0	0	0	39	0	Closed	118
November	866	0	0	0	0	0	0	440	0	Closed	1,306
December	1,395	0	0	0	0	0	0	—	0	Closed	1,395
TOTAL:	6,240	45	65	0	0	0	0	1,032	0	0	7,382

ESTIMATED ANGLER-HOURS

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	16,485	7,127	0	0	0	0	0	5,076	0	0	28,688
February	21,662	9,292	1,148	0	0	143	0	6,355	75	0	38,675
March	29,363	12,330	4,352	0	0	1,165	0	1,825	0	0	49,035
April	14,925	20,257	4,484	0	0	0	0	2,853	0	0	42,519
May	3,419	575	408	0	0	0	0	0	0	0	4,402
June	4,002	280	0	0	0	0	0	0	0	0	4,282
July	3,178	0	0	0	0	0	0	287	0	0	3,465
August	2,928	0	0	0	0	0	0	852	0	0	3,780
September	4,599	0	0	0	0	0	0	0	0	0	4,599
October	1,726	0	0	0	0	0	0	485	0	Closed	2,191
November	13,853	2,699	160	0	0	0	0	5,001	0	Closed	21,713
December	22,201	3,630	0	0	0	0	0	—	0	Closed	25,831
TOTAL:	138,341	56,190	10,552	0	0	1,308	0	22,714	75	0	229,180

CENTRAL VALLEY HARVEST MONITORING PROJECT

CATFISH (all species) - 2000

TOTAL ESTIMATED HARVEST

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	0	51	0	0	0	0	0	299	1,078	0	1,428
February	227	56	0	0	0	69	0	1,523	117	0	1,982
March	28	36	0	0	0	333	0	1,058	533	0	1,988
April	589	100	0	0	0	0	0	1,787	1,624	0	4,100
May	506	130	0	0	0	38	0	1,290	3,412	0	5,374
June	0	254	0	0	0	0	0	1,817	838	0	2,909
July	563	321	0	0	0	38	0	5,167	1,739	0	7,826
August	260	154	0	0	0	0	0	4,093	322	0	4,829
September	519	112	71	0	0	45	0	2,507	491	0	3,745
October	0	250	87	0	0	0	0	5,150	250	Closed	5,737
November	96	345	0	0	10	0	0	63	91	Closed	605
December	55	12	0	0	0	0	0	—	0	Closed	67
TOTAL:	2,843	1,821	158	0	10	519	0	24,754	10,495	0	40,600

TOTAL ESTIMATED RELEASED

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	33	5	0	0	0	0	0	37	0	0	75
February	0	173	0	0	0	115	0	109	86	0	483
March	0	0	0	0	0	208	0	127	195	0	530
April	0	0	0	0	0	0	0	439	128	0	567
May	60	20	0	0	0	22	0	204	389	0	695
June	0	84	0	0	0	20	0	515	71	0	690
July	596	248	0	0	0	18	0	919	501	0	2,282
August	40	114	0	0	0	24	0	1,136	0	0	1,314
September	65	79	0	0	0	0	0	1,596	221	0	1,960
October	0	79	0	0	0	42	0	1,200	18	Closed	1,339
November	0	91	0	0	0	0	0	0	0	Closed	91
December	14	94	0	0	0	0	0	—	0	Closed	108
TOTAL:	808	986	0	0	0	449	0	6,282	1,609	0	10,134

ESTIMATED ANGLER-HOURS

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	65	389	15	0	76	0	0	810	467	0	1,822
February	251	447	61	0	0	204	0	2,082	341	21	3,407
March	196	548	189	0	0	156	0	3,836	704	145	5,774
April	842	862	109	0	405	71	0	3,213	2,556	0	8,058
May	1,539	1,244	0	0	0	369	0	8,862	3,781	0	15,795
June	1,633	1,109	0	0	0	588	0	5,879	2,558	0	11,767
July	3,756	1,866	24	0	36	434	68	11,899	1,502	51	19,636
August	1,132	1,858	15	0	71	832	0	7,559	621	0	12,088
September	584	1,429	89	0	0	404	0	4,217	1,134	27	7,884
October	0	657	260	0	0	146	37	9,981	783	Closed	11,864
November	553	429	0	0	185	80	0	1,132	57	Closed	2,416
December	75	180	101	0	85	85	0	—	139	Closed	665
TOTAL:	10,626	11,018	863	0	838	3,369	105	59,470	14,643	244	101,176

CENTRAL VALLEY HARVEST MONITORING PROJECT

SUNFISH (all species) - 2000

TOTAL ESTIMATED HARVEST

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	0	0	0	0	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0	27	0	0	27
September	0	0	0	0	0	0	0	457	125	0	582
October	0	0	0	0	0	0	0	0	0	Closed	0
November	0	0	0	0	0	0	0	0	0	Closed	0
December	0	0	0	0	0	0	0	0	0	Closed	0
TOTAL:	0	0	0	0	0	0	0	484	125	0	609

TOTAL ESTIMATED RELEASED

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	0	0	0	0	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0	0	0	0	0
September	0	0	0	0	0	0	0	0	0	0	0
October	0	0	0	0	0	0	0	39	0	Closed	39
November	0	0	0	0	0	0	0	0	0	Closed	0
December	0	0	0	0	0	0	0	0	0	Closed	0
TOTAL:	0	0	0	0	0	0	0	39	0	0	39

ESTIMATED ANGLER-HOURS

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	0	0	0	0	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0	53	0	59	112
September	0	0	0	0	0	0	0	160	415	0	575
October	0	0	0	0	0	0	0	128	0	Closed	128
November	0	0	0	0	0	0	0	0	0	Closed	0
December	0	0	0	0	0	0	0	0	0	Closed	0
TOTAL:	0	0	0	0	0	0	0	339	415	59	813

CENTRAL VALLEY HARVEST MONITORING PROJECT

BLACK BASS (all species) - 2000

TOTAL ESTIMATED HARVEST

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	0	0	0	0	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0	0	0	0	0
April	0	0	0	11	0	0	0	31	0	0	42
May	0	0	0	0	0	0	0	0	26	0	26
June	0	0	0	0	0	0	0	124	72	0	196
July	0	0	0	0	0	0	0	0	236	0	236
August	0	14	0	0	0	0	0	79	13	0	106
September	0	11	0	26	0	0	0	46	232	0	315
October	0	0	43	0	0	63	0	116	0	Closed	222
November	0	0	0	0	0	0	0	0	0	Closed	0
December	0	0	80	0	0	0	0	—	0	Closed	80
TOTAL:	0	25	123	37	0	63	0	396	579	0	1,223

TOTAL ESTIMATED RELEASED

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	0	0	0	0	0	0	0	50	144	0	194
February	0	0	0	0	0	0	0	140	11	0	151
March	0	0	0	0	0	0	0	889	397	0	1,286
April	0	0	0	0	0	0	0	1,884	0	0	1,884
May	603	0	0	0	0	0	0	407	820	0	1,830
June	0	14	0	0	115	0	0	180	579	0	888
July	464	18	0	0	0	0	0	2,813	560	0	3,855
August	0	42	0	0	0	24	0	1,849	458	0	2,373
September	33	0	0	0	104	15	0	2,234	957	0	3,343
October	0	0	0	0	0	125	0	1,588	512	Closed	2,225
November	0	0	0	0	0	67	0	189	91	Closed	347
December	0	0	0	0	0	119	0	—	229	Closed	348
TOTAL:	1,100	74	0	0	219	350	0	12,223	4,758	0	18,724

ESTIMATED ANGLER-HOURS

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	0	0	0	0	85	0	0	181	548	0	814
February	0	0	0	0	0	0	0	781	227	0	1,008
March	0	0	0	0	0	42	0	2,143	972	121	3,278
April	0	0	0	79	0	141	0	157	0	0	377
May	723	0	0	0	0	43	0	747	974	0	2,487
June	377	28	0	0	230	288	0	978	1,135	72	3,108
July	505	82	0	0	0	41	0	3,502	1,224	0	5,354
August	0	14	144	0	0	59	0	6,351	1,408	0	7,974
September	195	39	0	179	1,163	166	0	3,225	2,441	0	7,408
October	0	0	151	0	0	495	0	5,083	868	Closed	6,597
November	0	0	0	0	77	131	0	1,008	330	Closed	1,544
December	0	0	228	0	0	255	0	—	258	Closed	741
TOTAL:	1,800	163	523	258	1,555	1,661	0	24,154	10,383	193	40,690

CENTRAL VALLEY HARVEST MONITORING PROJECT

ANYTHING (anglers fishing for any species) - 2000

TOTAL ESTIMATED HARVEST

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	11	0	0	0	0	0	0	212	0	0	223
February	2,216	75	0	0	309	23	0	202	32	0	2,857
March	1,823	194	102	88	95	42	0	189	29	0	2,540
April	0	397	64	30	185	24	0	564	21	589	1,874
May	60	305	28	0	105	22	0	475	28	0	1,021
June	96	354	0	0	0	122	0	353	197	180	1,302
July	302	248	24	0	345	164	0	2,411	383	0	3,877
August	50	98	0	0	212	24	0	79	81	0	544
September	0	58	18	0	243	15	0	273	0	0	605
October	0	68	43	0	117	0	0	426	182	Closed	836
November	0	26	0	0	20	0	0	0	0	Closed	46
December	0	113	0	11	0	17	0	—	0	Closed	141
TOTAL:	4,558	1,934	279	127	1,631	453	0	5,184	951	769	15,866

TOTAL ESTIMATED RELEASED

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	44	0	0	0	0	0	0	75	18	0	137
February	13	0	0	0	0	48	0	16	0	0	75
March	323	40	0	0	179	42	0	85	0	0	669
April	112	89	0	0	349	24	0	157	62	0	793
May	450	514	65	0	111	0	0	68	26	0	1,234
June	362	761	0	0	192	178	0	27	184	0	1,702
July	66	683	124	30	164	148	0	459	0	0	1,874
August	200	280	0	0	576	784	0	53	238	0	2,131
September	130	101	126	0	160	76	0	91	0	165	849
October	0	11	0	0	0	58	37	310	184	Closed	600
November	0	19	321	0	0	0	0	83	9	Closed	412
December	0	21	0	53	18	0	0	—	0	Closed	92
TOTAL:	1,700	2,519	636	83	1,749	1,354	37	1,404	721	165	10,368

ESTIMATED ANGLER-HOURS

River:	Sacramento				American	Feather	Yuba	San Joaquin	Mokelumne	Stanislaus	
Section No.:	1,2	3,4	5,6	7,8	9-10,1	11-12,1	13,14	15	16,17	18	TOTAL
January	1,077	2,664	229	60	1,699	544	55	1,053	159	45	7,585
February	2,542	188	0	0	2,577	454	0	443	196	316	6,716
March	6,443	724	667	187	2,514	618	249	645	153	520	12,720
April	576	2,429	442	10	4,525	1,741	0	940	177	442	11,282
May	4,890	3,230	1,393	0	3,798	1,060	0	1,205	583	395	16,554
June	1,000	3,334	91	42	4,105	2,845	44	1,180	834	810	14,285
July	4,180	3,157	662	91	6,452	1,925	238	6,789	884	102	24,480
August	1,190	1,706	249	42	5,233	1,203	0	502	545	293	10,963
September	3,845	569	291	13	4,285	944	0	843	37	1,337	12,164
October	1,350	427	1,006	42	1,722	700	425	2,814	624	Closed	8,910
November	0	772	812	90	1,262	201	0	818	35	Closed	3,990
December	54	2,869	45	280	1,397	247	0	—	260	Closed	5,152
TOTAL:	27,147	22,069	5,887	857	39,569	12,482	1,011	17,032	4,487	4,260	134,801