Cache Creek Fisheries Survey 2008
Technical Report

Prepared for
Yolo County Flood Control & Water Conservation District
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Woodland, CA 95695

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1 INTRODUCTION

Cache Creek is a large stream in Lake, Colusa, and Yolo counties, California (Appendix A). The headwaters of the South Fork are located at Clear Lake in Lake County. From here, the creek more or less flows alongside State Route 20 and bends south near the junction of State Route 20 and State Route 16 in Colusa County. The North Fork begins at Indian Valley Reservoir in Lake County and joins the South Fork near Wilbur Springs.

Indian Valley Dam and Reservoir regulate flow on North Fork Cache Creek. Cache Creek Dam, located 5 miles downstream from Clear Lake, regulates outflow on South Fork Cache Creek. Capay Diversion Dam, built in 1914 and located approximately 50 miles downstream from the Cache Creek Dam, diverts water into the Winters Canal to the south and the West Adams canal to the north for distribution throughout the Yolo County Flood Control and Water Conservation District service area.

Results of the Cache Creek fish survey conducted in spring and fall 2008 are summarized in this technical report. Surveys were conducted within Yolo County at 10 sites between the Cache Creek settling basin and Upper Cache Creek Regional Park. Prior to the survey, a review of available information regarding fish species inhabiting Cache Creek was conducted and a list of species anticipated in the area was developed.

2 METHODS

Ten study sites were planned for sampling as part of this study. Six of the 10 sites were surveyed during spring 2008. The remaining 4 sites in the upper reach could not be surveyed due to seasonally high flows (deep water and high water velocities); these sites were surveyed in fall 2008 after high flows receded (Table 1). An overview map and photographs of each site are shown in Appendix A. Three sampling methods were utilized during the surveys: backpack electrofishing, visual encounter snorkel surveying, and beach seining. Methods varied based on habitat conditions; however, two of these three methods were used at each survey site (Table 1). Backpack electrofishing was used in shallow margin or edgewater habitats where two surveyors could safely and effectively net stunned fish. Snorkel surveys were conducted in deep run and pool habitats in which electrofishing was precluded by water depth. Beach seining was used in deep pools or slow, deep runs where visibility was poor and water depth precluded effective electrofishing.

Table 1. Cache Creek Fisheries Survey Sites: 2008

Site	Access Road	Coordinates [1]	Elevation (ft.)	Survey Date (2008)	Habitat Type	Methods
Levee Site	Rd. 102	10S 0613432/4284157	25	04.01	Run Pool	Electrofish Seine
Huff's Bend	Rd. 18	10S 0602458/4285887	35	03.25	Riffle Run	Electrofish Snorkel
Cache Creek Conservancy	Rd. 94/Rd. 20	10S 0597958/4282757	105	03.25	Riffle Run	Electrofish Snorkel
Capay Open Space Park	Bridge Rd. 85	10S 0582903/4285138	185	03.24	Riffle Run Pool	Electrofish Snorkel
Below Capay Dam	Rd. 82	10S 0579600/4285409	195	03.26	Pool	Electrofish Snorkel
Rumsey Reservation	Rd. 75a	10S 0574088/4290668	290	03.24	Riffle Run	Electrofish Snorkel
Nichols County Park	Rd. 57	10S 0570717/4298109	310	10.29	Riffle Run Pool	Electrofish Snorkel
Camp Haswell	Rt. 16	10S 0563788/4307086	450	03.27	Pool Run	Electrofish Snorkel
Lower Cache Creek Regional	Rt. 16	10S 0559682/4306720	560	10.29	Pool Riffle	Electrofish Snorkel
Upper Cache Creek Regional	Rt. 16	10S 0558319/4308422	655	10.29	Pool Riffle	Electrofish Snorkel

[1]UTM, NAD 83

3 RESULTS

Ten species were observed during the 2008 Cache Creek fisheries survey: bluegill (*Lepomis macrochirus)*, green sunfish (*Lepomis cyanellus)*, largemouth bass (*Micropterus salmoides)*, smallmouth bass (*Micropterus dolomieui)*, inland silverside (*Menidia beryllina)*, western mosquito fish (*Gambusia affinis)*, Sacramento pikeminnow (*Ptychocheilus grandis)*, Sacramento sucker (*Catostomus occidentalis)*, common carp *(Cyprinus carpio)*, and speckled dace (*Rhinichthys osculus)* (Figure 1, Table 2).

A total of 619 fish (365 above Capay Dam and 254 below) were observed on Cache Creek during the 2008 surveys. By a considerable margin, common carp was the most abundant species both above and below the dam (Table 2). Species richness was greatest at sites below Capay Dam, yet the majority of species (7 of 9) observed in this reach have

been introduced to California. Conversely, 3 of the 5 species observed above Capay Dam are native to California (Table 2).

A length frequency histogram for the native species observed in Cache Creek is shown in Figure 2. Figure 3 shows a length frequency histogram for introduced fish in the sunfish family (Centrarchidae) and Figure 4 presents a length frequency histogram for additional introduced fish observed in Cache Creek during the 2008 surveys. Results of the survey at each site are discussed in further detail below and data are presented by site in Appendix B.

Table 2. Summary of the 2008 Cache Creek fisheries survey results

Site	Bluegill (Introduced)	Green sunfish (Introduced)	Largemouth bass (Introduced)	Smallmouth bass (Introduced)	Inland silverside (Introduced)	Western mosquito fish (Introduced)	Sacramento pikeminnow (Native)	Sacramento sucker (Native)	Common carp (Introduced)	Speckled dace (Native)
Levee Site	18	2	1	1	8	3	-	-	-	-
Huff's Bend	3	-	-	-	-	-	1	-	-	-
Cache Creek Conservancy	2	-	-	-	-	-	-	15	-	-
Capay Open Space Park	7	-	1	-	-	-	-	12	-	-
Below Capay Dam	-	-	-	10	-	-	20	25	125	-
Rumsey Reservation	-	-	-	-	-	-	5	-	-	1
Nichols County Park	-	-	-	-	-	-	5	5	260	56
Camp Haswell	-	-	-	-	-	-	-	3	-	-
Lower Cache Creek Regional Park	-	-	-	-	-	-	-	6	-	5
Upper Cache Creek Regional Park	-	-	-	1	-	-	3	6	-	7

3.1 Lower Levee Site

The lower levee site is located approximately 1.5 mi. downstream of the bridge on County Road 102 and consists of a wide, deep run and connected side pool approximately 200 ft. in length and 100 ft. in width (Appendix A, Photographs A and B). At the time of the survey, water temperature was 18°C and visibility within the water column was poor. Backpack electrofishing was used to sample the margins and shallow edgewater habitat and a beach seine was used to sample the deeper habitat. Fish species observed at this site included: bluegill, green sunfish, largemouth bass, smallmouth bass, inland silverside, and western mosquito fish (Figure 1; Table 2).

3.2 Huff's Bend

The Huff's Bend site is located near County Road 18 and includes a series of shallow riffles, runs and lateral scours approximately 300 ft. in length and 70 ft. in width (Appendix A, Photographs C and D). At the time of the survey, water temperature was 18°C and visibility within the water column was very high. A combination of backpack electrofishing and snorkel surveying was used at the Huff's Bend site and fish species observed included Sacramento pikeminnow and bluegill (Figure 1; Table 2).

3.3 Cache Creek Conservancy

This site includes a series of riffles and runs approximately 300 ft. in length and 70 ft. in width located on the Cache Creek Conservancy property (Appendix A, Photographs E and F). At the time of the survey, water temperature was 17°C and visibility within the water column was very high. A combination of backpack electrofishing and snorkel surveying was used at this site and fish species observed included Sacramento sucker and bluegill (Figure 1; Table 2).

3.4 Capay Open Space Park

The Capay Open Space Park is located north of Esparto where County Road 85 crosses over Cache Creek. The site is approximately 300 ft. long and consists of a long, deep pool (approximately 150 ft. wide) under the County Road 85 bridge, followed downstream by a shallow run and riffle complex approximately 70 ft. in width (Appendix A, Photograph G). At the time of the survey, water temperature was 18°C and visibility was poor in the pool habitat and moderate in the riffle and run habitats. A combination of backpack electrofishing and snorkel surveying was used. Fish species observed at this site were Sacramento sucker, bluegill, and largemouth bass (Figure 1; Table 2).

3.5 Downstream of Capay Dam

This site is located directly downstream of Capay Dam and consists of a large pool approximately 250 ft. in length and 175 ft. in width and several disconnected sidepools (Appendix A, Photographs H - J). When this site was surveyed water was being diverted into West Adam's and Winters canals and very little water was passing through Capay

Dam downstream into Cache Creek. At the time of the survey, water temperature was 17°C and visibility was moderate throughout the site. A combination of backpack electrofishing and snorkel surveying was used at this site. Fish species observed included common carp, smallmouth bass, Sacramento pikeminnow, and Sacramento sucker (Figure 1; Table 2).

3.6 Rumsey Reservation

This site is located on the Rumsey Reservation property downstream of County Road 75a. The site is approximately 350 ft. long and 75 ft. wide and consists of a long shallow riffle followed by a long shallow run (Appendix A, Photographs K and L). At the time of the survey, the water temperature was 20°C and visibility was very high. A combination of backpack electrofishing and snorkel surveying was used at this site and fish species observed at this site included speckled dace and Sacramento pikeminnnow (Figure 1; Table 2).

3.7 Nichol's County Park

This site is located along County Road 57 and consists of a large, deep pool approximately 200 ft. long and 100 ft. wide and an upstream riffle and run series approximately 100 ft. long and 50 ft. wide (Appendix A, Photographs M and N). At the time of the survey, the water temperature was 19°C and visibility was very high. A combination of electrofishing and snorkel surveying was used at this site. Fish species observed included speckled dace, Sacramento pikeminnow, and common carp (Figure 1; Table 2).

3.8 Camp Haswell

Camp Haswell is a Yolo County recreation area located along Rt.16 north of Rumsey. This site is approximately 250 ft. in length and includes a deep pool (approximately 100 ft. wide) and a moderately deep run (approximately 50 ft. wide) (Appendix A, Photograph O). At the time of the survey, the water temperature was 12°C and visibility was moderate. A combination of electrofishing and snorkel surveying was used and Sacramento pikeminnow was the only species observed at this site (Figure 1; Table 2).

3.9 Lower Cache Creek Regional Park

Lower Cache Creek Regional Park is located along Rt. 16 approximately 10 miles south of the Hwy. 20 intersection. This site consists of a mid-channel pool approximately 175 ft. in length and 125 feet in width and a riffle approximately 150 ft. in length and 30 ft. in width (Appendix A, Photographs P and Q). At the time of the survey, the water temperature was 15°C and visibility was very high. A combination of electrofishing and snorkel surveying was used and species observed included speckled dace and Sacramento sucker (Figure 1; Table 2).

3.10 Upper Cache Creek Regional Park

Upper Cache Creek Regional Park is located along Rt. 16 approximately 8 miles south of the Hwy. 20 intersection. This site consists of a pool approximately 200 ft. in length and 125 ft. in width and a short riffle at the pool tail (Appendix A, Photographs R and S). At the time of the survey, the water temperature was 12°C and, despite high water clarity, visibility was moderate due to thick algal blooms throughout the reach. A combination of electrofishing and snorkeling was used and species observed included speckled dace, Sacramento sucker, Sacramento pikeminnow, and smallmouth bass (Figure 1; Table 2).

4 DISCUSSION AND CONCLUSION

4.1 Current and Historical Fish Populations on Cache Creek

All of the fish species observed during the 2008 survey except the common carp were previously documented on Cache Creek in a 1997 survey (Moyle and Marchetti 1998). Several other species, mostly introduced, were observed in 1997, but not seen in 2008 (Table 3). In addition, threadfin shad (*Dorosoma petenense*) was observed below Capay Dam in large numbers during June 2005 (Stevenson *pers. comm.* 2009), but not documented in either 1997 or 2008.

In 2008, native fishes such as Sacramento sucker, Sacramento pikeminnow, and speckled dace were most abundant at sites above Capay Dam. Below the dam, a combination of native and introduced fish, such as bluegill and smallmouth bass, were typically observed. Large numbers of common carp were observed both above and below the dam.

Table 3. Fish species observed in Cache Creek: 1997 and 2008

Fish Species	1997 Survey[1]	2008 Survey[2]
Black bullhead (*Ameiurus melas*), Introduced	x	
Bluegill (*Lepomis macrochirus*), Introduced	x	x
California roach (*Lavinia symmetricus*), Native	x	
Common Carp (*Cyprinus carpio*), Introduced		x
Fathead minnow (*Pimephales promelas*), Introduced	x	
Golden shiner (*Notemigonus chrysoleucas*), Introduced	x	
Goldfish (*Carassius auratus*), Introduced	x	
Green sunfish (*Lepomis cyanellus*), Introduced	x	x
Hardhead (*Mylopharodon conocephalus*), Native	x	
Hitch (*Lavinia exilicauda*), Native	x	
Inland silverside (*Menidia beryllina*), Introduced	x	x
Largemouth bass (*Micropterus salmoides*), Introduced	x	x
Prickly sculpin (*Cottus asper*), Native	x	
Red shiner (*Cyprinella lutrensis*), Introduced	x	
Sacramento blackfish (*Orthodon microlepidotus*), Native	x	
Sacramento pikeminnow (*Ptychocheilus grandis*), Native	x	x
Sacramento sucker (*Catostomus occidentalis*), Native	x	x
Smallmouth bass (*Micropterus dolomieui*), Introduced	x	x
Speckled dace (*Rhinichthys osculus*), Native	x	x
Spotted bass (*Micropterus punctulatus*), Introduced	x	
Western mosquitofish (*Gambusia affinis*), Introduced	x	x

[1] Conducted by UC Davis affiliates as part of the Putah-Cache Creek Bioregion Project (Moyle and Marchetti 1998)

[2] Conducted by Stillwater Sciences for the Yolo County Flood Control & Water Conservation District

Cache Creek only connects to the Sacramento River in wet years. During the summer and fall, discharge rapidly decreases downstream of Capay Dam and, during most years, the creek dries up altogether before reaching the settling basin (an impoundment near the town of Woodland that allows sediment from Cache Creek to settle out before reaching the Yolo Bypass). The intermittency of Cache Creek is largely due to damming and diversion for agricultural purposes; however, a section of the creek below the dam (from Moore Siphon to County Road 102) consists of porous alluvium and is hydrologically a losing reach. Thus, regardless of the dam system, surface flow in the lowermost sections of Cache Creek would likely be limited during most years.

Historically, Chinook salmon, steelhead, and Pacific lamprey were observed spawning as far up as Capay Dam in Cache Creek (Shapovalov 1947 as cited in Yoshiyama et al. 1996, Moyle et al. 1995). Early records suggest that steelhead may have spawned in tributary streams to Clear Lake (Moyle 2000, Lindley et al. 2006) and that fall salmon runs opportunistically entered Cache Creek to spawn, as hydrologic conditions allowed (Fry 1961 as cited in Yoshiyama et al. 1996). This was ostensibly precluded during dry years because Cache Creek did not reach the Sacramento River (Yoshiyama et al. 1996). In recent decades, little indication of salmon on Cache Creek has been found, even during wet years. In November, 2000, however, a crew of UC Davis scientists collecting fish

for mercury analysis found distinct evidence of salmon spawning in the creek (Moyle and Ayers 2000).

4.2 Recommendations for Monitoring Methods on Cache Creek

The methods used in this study were appropriate for assessing species presence and distribution. Should quantifiable estimates of abundance and biomass be desired, modifications to these methods would need to be applied. In addition, the methods are suggested in the context of a species composition inventory and do not target individual species. Should the District want to conduct surveys to investigate the potential presence and distribution of a particular species, such as steelhead or salmon, the surveys should be timed with regard to the life history of that species.

4.2.1 Site Selection

The ten sites surveyed during this study are safely accessible and represent a variety of habitat. The District has already initiated communication with corresponding landowners and previously attained permission to conduct this type of study at these locations (Appendix C). Repeat sampling at these sites would provide a dataset indicative of temporal trends in Cache Creek above and below Capay Dam. Additional sites to consider include stream sections adjacent to Fully Belly Farms (between Camp Haswell and Nichol's County Park) and County Road 87 (between the Capay Open Space Park and the Cache Creek Conservancy). These sites were not surveyed in 2008, but identified as accessible with surveyable habitat. Finally, the District may want to consider adding one or two longitudinally contiguous sample reaches in which fisheries biologists hike a set length of stream, surveying habitat units on a periodic basis (*e.g.*, every tenth of a mile) along the way. This approach is a cost effective way to attain more spatially comprehensive information regarding fish distribution in Cache Creek because it reduces travel time between sites while maximizing time in the stream.

4.2.2 Survey Methods

Aquatic habitat on Cache Creek is varied; therefore, multiple survey methods conducted during the same sampling period are suggested in order to adequately sample all habitat types.

The most difficult stream section to survey is that closest to the settling basin. This reach consists of deep runs and pools with extremely limited visibility. Direct observation (*i.e.*, snorkeling) is, therefore, not effective. The use of a beach seine in deeper water and backpack electrofishing along margins and in shallow areas is suggested. Utilizing a boat or raft equipped with an electrofisher, a trawl, or a purse-seine may yield a more comprehensive species inventory in this section, but would significantly increase survey cost. Deploying gill nets would be more cost effective, but would result in increased mortality.

The reaches below Capay Dam to Huff's Bend and above Capay Dam to Cache Creek Regional Park include riffles, runs, and pools with much greater visibility. In these

reaches, direct observation or snorkeling is suggested in deeper runs and pools and surveying with a backpack electrofisher is recommended in riffles and shallow runs.

4.2.3 Timing and Frequency

The months of September – November are the most effective time for monitoring in the upper section of the creek (above Capay Dam) due to reduced discharge. Flows during this timeframe are typically reduced because (1) agricultural releases from Clear Lake and Indian Valley Reservoir have ceased and (2) accumulation of rainwater from winter storms has not yet begun. In the lower portion of the creek (below Capay Dam) it is possible to conducted surveys during the spring, summer, or fall. Discharge during the spring and summer is reduced due to diversion for irrigation and the natural hydrograph elicits lower flows during the fall. The deep pools and runs close to the settling basin, however, are probably most effectively surveyed during mid to late summer, while surface flow is still present but declining.

Surveys using seines or electrofishing (backpack or boat) are most effective during peak daylight hours. Snorkel surveys, however, can be conducted during daylight hours or at night using dive lights. There are advantages and disadvantages to each approach. Visibility is obviously much greater during the day. Yet, some fish species typically take cover during the day and are often more visible in the water column at night. Therefore, if funds allows, the District may consider conducting both daytime and nighttime snorkel surveys at some sites.

5 LITERATURE CITED

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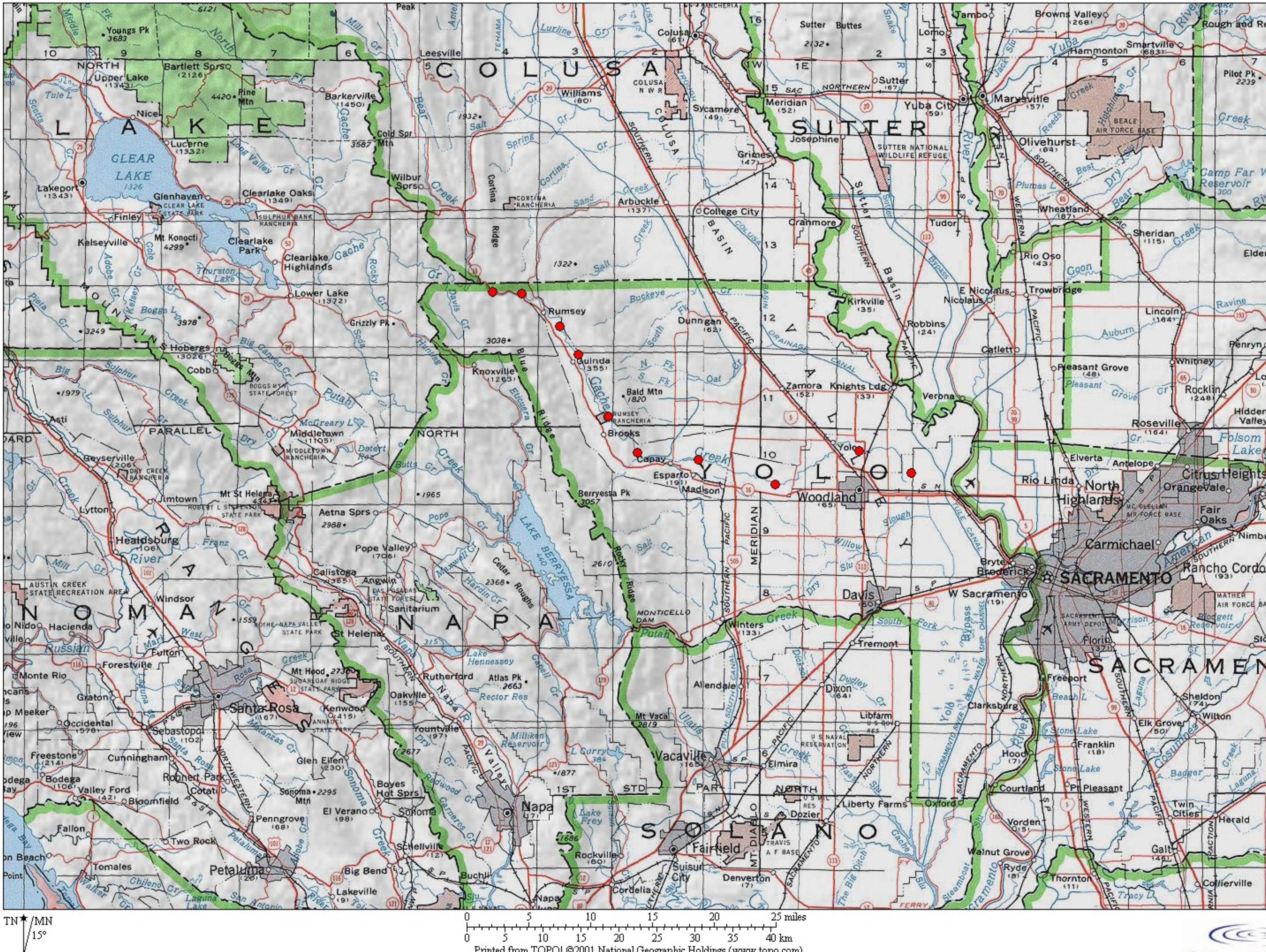
Appendix A

Site Location Maps and Photographs



Photograph A: Site 1 (Levee Site). 10S 0613432/4284157. 01 April 2008.

Photograph B: (Site 1: Levee Site). 10S 0613432/4284157. 01 April 2008.

Photograph C: Site 2 (Huff's Bend). 10S 0602458/4285887. 25 March 2008.

Photograph D: Site 2 (Huff's Bend). 10S 0602458/4285887. 25 March 2008.

Photograph E: Site 3 (Cache Creek Conservancy). 10S 0597958/4282757. 25 March 2008.

Photograph F: Site 3 (Cache Creek Conservancy). 10S 0597958/4282757. 25 March 2008.

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Photograph G: Site 4 (Capay Open Space Park). 10S 0582903/4285138. 24 March 2008.

Photograph H: Site 5 (Capay Dam Pool). 10S 0579600/4285409. 26 March 2008.

Photograph I: Site 5 (Capay Dam Pool). 10S 0579600/4285409. 26 March 2008.

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Photograph J: Site 5 (Capay Dam Pool). 10S 0579600/4285409. 26 March 2008.

Photograph K: Site 6 (Rumsey Reservation). 10S 0574088/4290668. 24 March 2008.

Photograph L: Site 6 (Rumsey Reservation). 10S 0574088/4290668. 24 March 2008.

Photograph M: Site 7 (Nichols Co. Park). 10S 0570717/4298109. 29 October 2008.

Photograph N: Site 7 (Nichols Co. Park). 10S 0570717/4298109. 29 October 2008.

Photograph 0: Site 8 (Camp Haswell). 10S 0563788/4307086. 27 March 2008.

Photograph P: Site 9 (Lower Cache Creek Regional Park). 10S 0559682/4306720. 29 October 2008.

Photograph Q: Site 9 (Lower Cache Creek Regional Park). 10S 0559682/4306720. 29 October 2008.

Photograph R: Site 10 (Upper Cache Creek Regional Park). 10S0558319/4308422. 29 October 2008.

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Photograph S: Site 10 (Upper Cache Creek Regional Park). 10S0558319/4308422. 29 October 2008.

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Appendix B

Survey Data

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Electrofish Data

Species	Total Length (mm)
Bluegill	50
Bluegill	50
Bluegill	50
Bluegill	25
Bluegill	25
Bluegill	75
Bluegill	75
Bluegill	50
Bluegill	25
Bluegill	50
Bluegill	50
Bluegill	75
Bluegill	75
Green sunfish	75
Green sunfish	50
Largemouth bass	200
Smallmouth bass	200
Total Fish	**17**

Seine Data

Species	Number of Fish	Size Class (mm)
Bluegill	2	75-100
Bluegill	3	50-75
Inland silverside	8	75-100
Western mosquitofish	3	10-25
Total Fish	**16**	

Electrofish Data

Species	Total Length (mm)
Bluegill	100
Bluegill	75
Bluegill	50
Sacramento pikeminnow	125
Total Fish	**4**

Snorkel Data

Species	Number of Fish	Size Class (mm)
-	-	-
-	-	-
-	-	-
-	-	-
Total Fish	**0**	

Electrofish Data

Species	Total Length (mm)
Bluegill	60
Bluegill	60
Sacramento sucker	160
Total Fish	**3**

Snorkel Data

Species	Number of Fish	Size Class (mm)
Sacramento sucker	4	175-200
Sacramento sucker	10	200-225
Total Fish	**14**	

Electrofish Data

Species	Total Length (mm)
Bluegill	50
Bluegill	90
Bluegill	115
Bluegill	70
Bluegill	70
Bluegill	60
Bluegill	55
Sacramento sucker	155
Sacramento sucker	155
Total Fish	**9**

Snorkel Data

Species	Number of Fish	Size Class (mm)
Largemouth Bass	1	175-200
Sacramento Sucker	10	175-200
Total Fish	**11**	

Electrofish Data

Species	Total Length (mm)
-	-
-	-
-	-
-	-
Total Fish	**0**

Snorkel Data

Species	Number of Fish	Size Class (mm)
Common carp	125	200-500
Sacramento Pikeminnow	20	150-200
Smallmouth bass	10	175-225
Sacramento sucker	25	150-300
Total Fish	**180**	

Electrofish Data

Species	Total Length (mm)
Speckled dace	60
Sacramento pikeminnow	75
Sacramento pikeminnow	80
Sacramento pikeminnow	95
Sacramento pikeminnow	90
Sacramento pikeminnow	70
Total Fish	**6**

Snorkel Data

Species	Number of Fish	Size Class (mm)
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
Total Fish	**0**	

Electrofish Data

Species	Total Length (mm)
Speckled Dace	70
Speckled Dace	110
Speckled Dace	65
Speckled Dace	120
Speckled Dace	50
Speckled Dace	70
Speckled Dace	80
Speckled Dace	40
Speckled Dace	55
Speckled Dace	75
Speckled Dace	50
Speckled Dace	130
Speckled Dace	70
Speckled Dace	70
Speckled Dace	75
Speckled Dace	75
Speckled Dace	75
Speckled Dace	70
Speckled Dace	110
Speckled Dace	80
Speckled Dace	70
Speckled Dace	60
Speckled Dace	120
Speckled Dace	80
Speckled Dace	55
Speckled Dace	50
Speckled Dace	100
Speckled Dace	55
Speckled Dace	50
Speckled Dace	60
Speckled Dace	75
Speckled Dace	55
Speckled Dace	65
Speckled Dace	50
Speckled Dace	60
Speckled Dace	70
Speckled Dace	55
Speckled Dace	90
Speckled Dace	85
Speckled Dace	110
Speckled Dace	50
Speckled Dace	80
Speckled Dace	75
Speckled Dace	60
Speckled Dace	50
Speckled Dace	70
Speckled Dace	60

Snorkel Data

Species	Number of Fish	Size Class (mm)
Common Carp	250	200-500
Common Carp	10	500+
Sacramento Pikeminnow	5	150-200
Sacramento Sucker	5	150-200
Smallmouth Bass	1	150-200
Total Fish	**271**	

Electrofish Data

Species	Total Length (mm)
Sacramento Pikeminnow	100
Sacramento Pikeminnow	100
Sacramento Pikeminnow	100
Total Fish	**3**

Snorkel Data

Species	Number of	Size Class (mm)
-	-	-
-	-	-
-	-	-
Total Fish	**0**	

Electrofish Data

Species	Total Length (mm)
Sacramento Sucker	265
Sacramento Sucker	160
Sacramento Sucker	130
Sacramento Sucker	140
Speckled Dace	85
Speckled Dace	92
Sacramento Sucker	158
Sacramento Sucker	100
Speckled Dace	95
Speckled Dace	82
Speckled Dace	80
Total Fish	**11**

Snorkel Data

Species	Number of	Size Class (mm)
-	-	-
-	-	-
-	-	-
Total Fish	**0**	

Electrofish Data

Species	Total Length (mm)
Sacramento Sucker	210
Sacramento Sucker	210
Sacramento Pikeminnow	170
Sacramento Sucker	190
Smallmouth Bass	110
Sacramento Pikeminnow	130
Speckled Dace	70
Speckled Dace	70
Speckled Dace	90
Sacramento Sucker	130
Speckled Dace	60
Speckled Dace	60
Sacramento Sucker	155
Sacramento Sucker	100
Sacramento Pikeminnow	90
Speckled Dace	60
Speckled Dace	75
Total Fish	**17**

Snorkel Data

Species	Number of Fish	Size Class (mm)
-	-	-
-	-	-
-	-	-
Total Fish	**0**	

Appendix C

Contact Information

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Appendix C: Site location, ownership, and contact information

Site	Access Rd.	Owner	Contact Info
(1) Levee Site	County Road 102	Department of Water Resources	John Nosacka: 916 952 6193
(2) Huffs Bend	County Road 18	Private	Harry and Jane Dewey: 530 662 3876
(3) Cache Creek Conservancy	County Roads 94 and 20	Conservancy	Lynelle Pollock: 530 661 1070
(4) Capay Open Space Park	County Road 85	Granite Construction	Aaron Karrion: 916 997 9958
(5) Capay Dam Pool	County Road 82	Flood District	Flood District Office: 530-662-0265 Maurice Wood (South access): 530 796 4457 Paul Smith (North Access): 530 220 5709
(6) Rumsey Reservation	County Road 75a	Tribe	Al Vallecillo: 530 796 3400
(7) Nichols County Park	County Road 57	County Park	Kevin Swartz: 530 406 4887
(8) Camp Haswell	State Route 16		
(9) Lower Cache Creek Regional Park			
(10) Upper Cache Creek Regional Park			

Figures

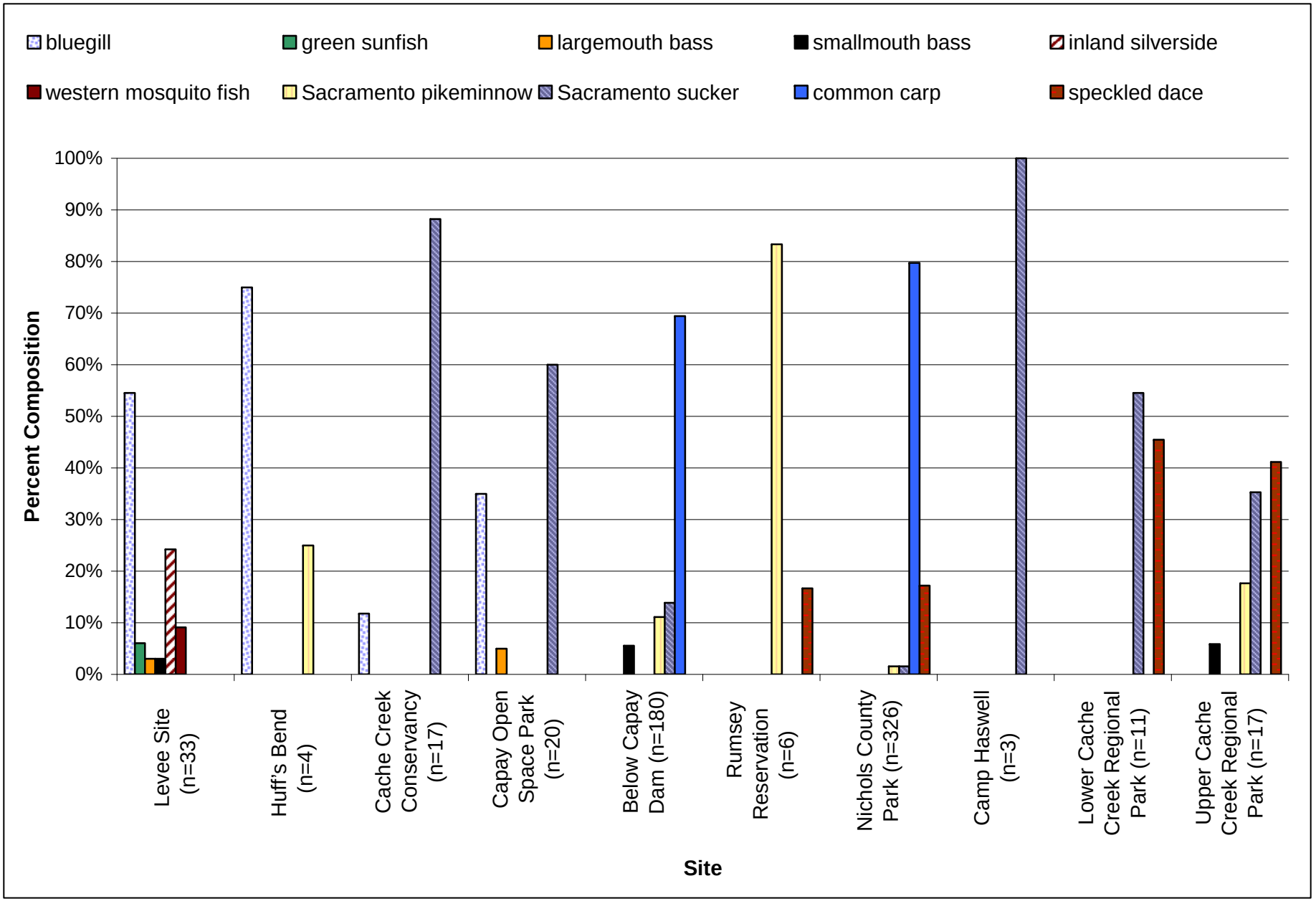

Figure 1. Species composition observed during the 2008 Cache Creek Fisheries Survey.

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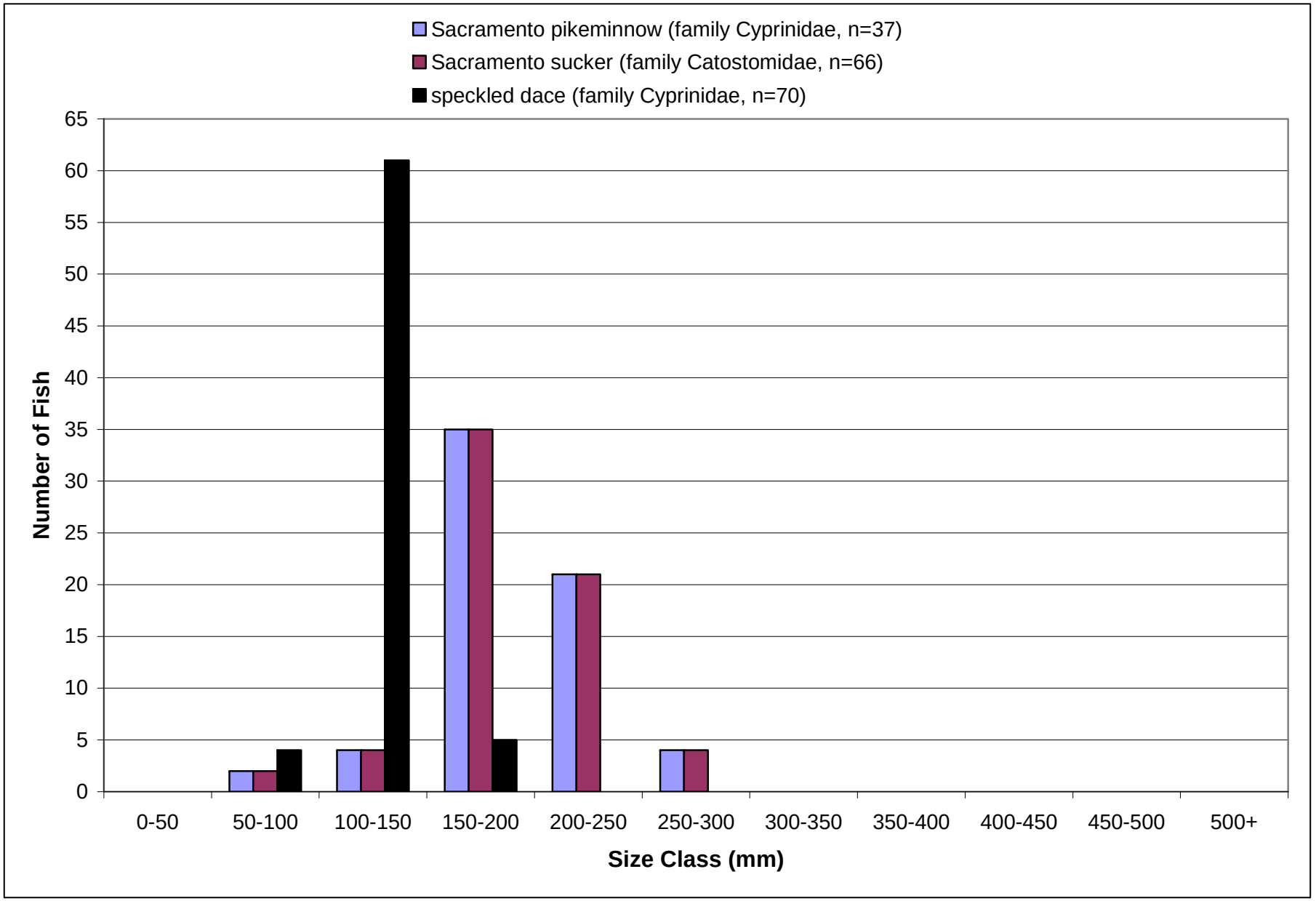

Figure 2. Length frequency histogram for fish species native to California observed in 2008 in Cache Creek.

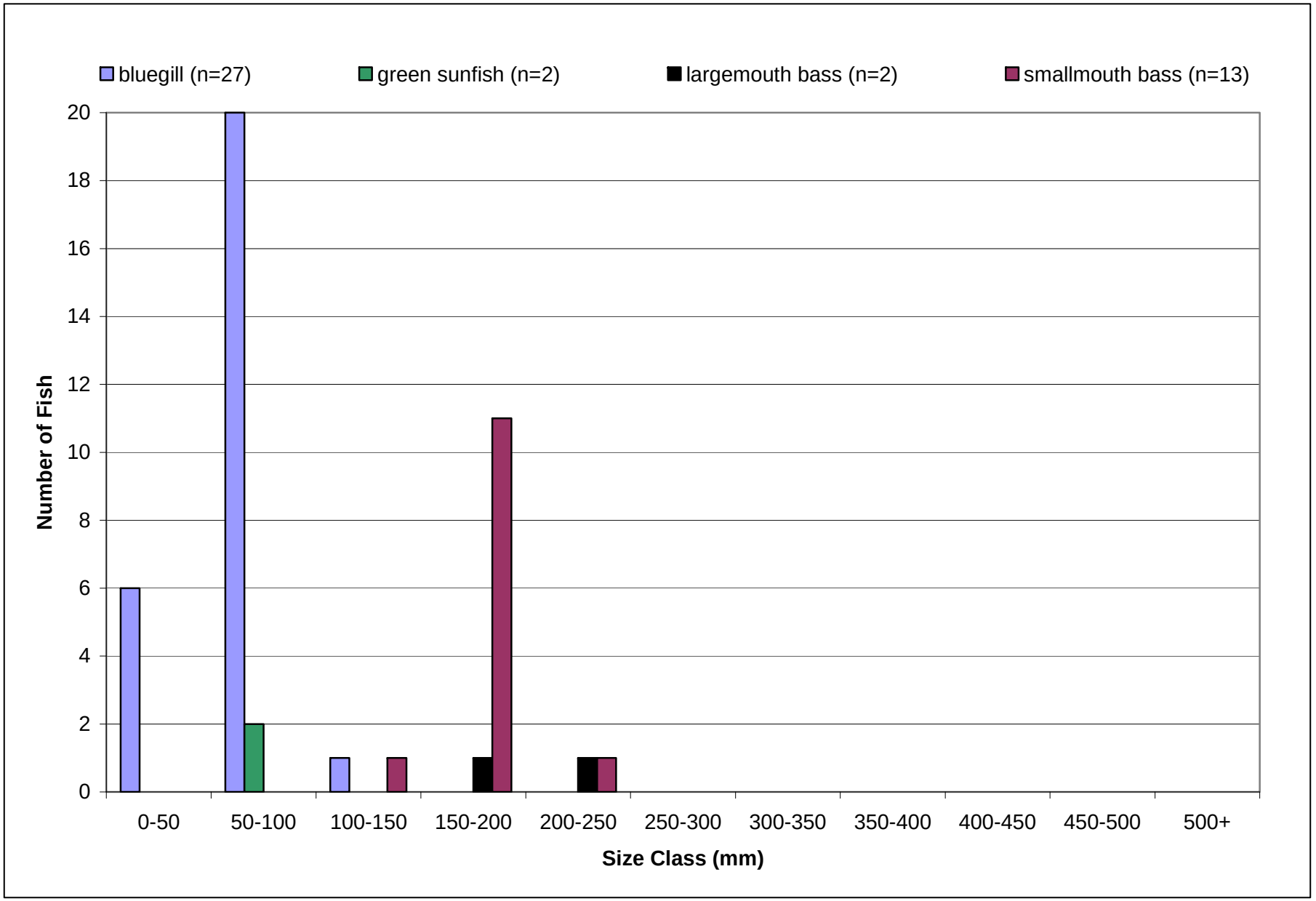

Figure 3. Length frequency histogram for introduced fish in the sunfish family (Centrarchidae) observed in 2008 in Cache Creek.

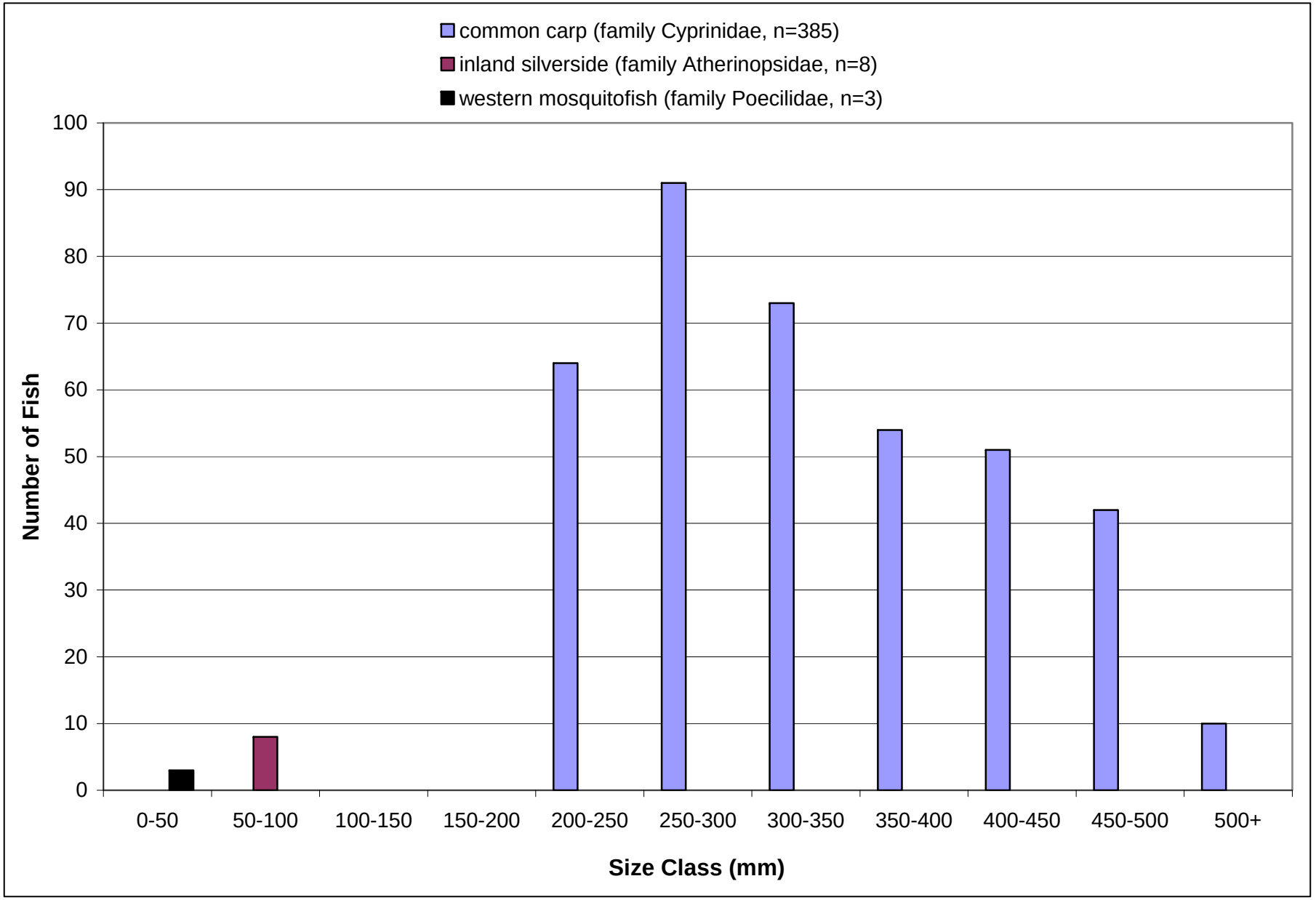

Figure 4. Length frequency histogram for additional introduced fish observed in 2008 in Cache Creek.

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