



IEP NEWSLETTER

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IEP QUARTERLY HIGHLIGHTS

July-December 2004

North Bay Aqueduct and 20-mm Surveys

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Sampling for the North Bay Aqueduct (NBA) larval fish survey typically begins on February 15 and finishes on July 15. Because of boat problems, the 2004 season ended on June 30. A total of 32,712 fish were collected, ranking ninth for the past 10 years (the beginning of this survey) of NBA; however, that ranking may be attributed to ending the season approximately two weeks early. This year's catch was dominated by prickly sculpin (46.4%), threadfin shad (24.0%), and striped bass (19.8%), which is typical of this survey. Longfin smelt comprised a small (1.1%) proportion of the catch, ranking fifth when comparing longfin catch percentages for the past 10 years. Similarly, the delta smelt catch percentage was moderate (0.5%) for this year and ranked fifth over the past 10 years.

NBA pumping is restricted to a five-day running average of 65 cfs when the weighted average of delta smelt catch from Barker Slough is equal to or greater than 1.0. There were no pumping restrictions for the North Bay Aqueduct Pumping Facility for 2004. For online information about the NBA Survey, see <http://www.delta.dfg.ca.gov/data/NBA/>.

20-mm Survey

The 20-mm Survey for 2004 began on March 29 and finished on July 10, with 8 surveys running every other week. This year's catch was dominated by threadfin shad (22.4%), longfin smelt (19.7%), and pacific herring (16.8%). Threadfin shad and longfin smelt commonly rank high in catch percentages; however, until recent years pacific

herring has never exceeded 2% of the catch. The young-of-the-year (YOY) delta smelt catch percentage (total catch = 630) for 2004 was similar to the previous two years; it made up 1.2% of the total catch and ranked seventh. Although longfin smelt catch for 2004 was markedly lower than the previous year, its percentage of the total catch increased from 15.1% to 19.7%. The total overall catch (52,201) for the season ranked ninth.

Moderate catches of YOY delta smelt first appeared at the confluence area and the central and south Delta on the San Joaquin River. Throughout the sampling season, the majority of delta smelt caught in the surveys shifted towards the central Delta and then shifted back to the lower Sacramento River, never going downstream of Grizzly Bay. None of the surveys had a strong showing of delta smelt. The mean annual catch-per-unit effort for Delta smelt for 2004 ranks ninth (Figure 1) out of the 10 years of this survey. Moderate catches of YOY longfin smelt persisted throughout the season.

The 2004 water year was below normal, which can typically cause the larval delta smelt distribution to shift landward toward the Delta; this shift can increase the likelihood of salvage at the state and federal pumping facilities. Take levels at the SWP and CVP never reached a "red light" level of concern, but a "yellow light" was reached from early to mid-June. For online information about the 20-mm Survey, see <http://www.delta.dfg.ca.gov/data/20mm/>.

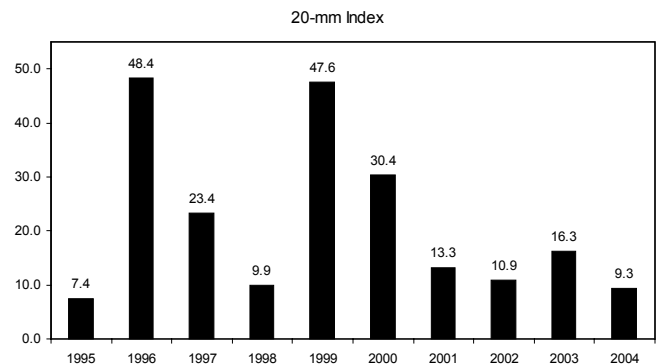


Figure 1 Annual mean density for delta smelt covering all years of the 20-mm Survey.