**Tracy Research Technical Report Abstract**

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Cathy Karp and Brent Bridges. 2015. *White Sturgeon Salvage Efficiency at the Tracy Fish Collection Facility.* May 2015. 22 pp.

The Bureau of Reclamation’s Tracy Fish Collection Facility (TFCF) in central California was designed in the mid-1950s to divert, collect, and return salvaged fish to the Sacramento-San Joaquin River Delta from exported flows enroute to the C.W. “Bill” Jones Pumping Plant. Today, millions of fish comprising 50+ species may be drawn into the facility. Juvenile white sturgeon (Acipenser transmontanus) louver efficiency was evaluated using release recapture experiments. In 28 trials, secondary and primary channel louver efficiency averaged 93.3 percent and 32.2 percent, respectively. Whole facility efficiency averaged 32.2 percent and was the same as primary channel efficiency. Following application of an underwater noise device in the primary channel, primary channel and whole facility efficiency increased significantly up to 74 percent (Kruskal-Wallis, P = 0.04). We attributed this increase to the startle effect of the dry ice device on predatory striped bass (Morone saxatilis) feeding behavior. Angling in the primary channel prior to release of the dry ice yielded 5 adult striped bass (mean 657.4 mm fork length), all with experimental white sturgeon in their stomachs. Striped bass were again captured by angling in the primary channel several hours following application of the noise device.