**Project Overview**

The Fall Midwater Trawl (FMWT) Survey contributes to the monitoring of aquatic species in the San Francisco Estuary, including the endangered fish species Delta Smelt (*Hypomesus transpacificus*). Like all fishing gears, the midwater trawl used in the survey has imperfect sampling efficiency. In particular, some fish that come into contact with the net are not captured because they escape through the cod-end mesh before the net is retrieved. Between August 2014 and January 2015, we conducted a Fall Midwater Trawl covered cod end (FMWT CCE) study to investigate how well the FMWT net catches Delta Smelt and use the results to account for the effects of gear efficiency in analyses based on FMWT Survey data. We attached a small-mesh cover around the outside of the FMWT cod end, which allowed us to capture Delta Smelt that slipped through the cod-end mesh and examine the proportion of Delta Smelt retained in the cod end as a function of fish size. We also towed the FMWT net using two methods: (1) the FMWT Survey's standard oblique tow method, which samples the entire water column, and (2) a two-boat surface tow method that samples a portion of the water column closest to the surface. Our goal for this part of the study was to investigate the depth distribution of Delta Smelt by comparing catch densities from paired oblique and surface tows. Sampling took place in the lower Sacramento River south of Rio Vista, CA and in the Sacramento Deep Water Ship Channel.

The data files posted here were used to prepare the article on the FMWT CCE study presented by Mitchell et al. (2017).

**References**

Mitchell L, Newman K, Baxter R. 2017. A covered cod-end and tow-path evaluation of midwater trawl gear efficiency for catching Delta Smelt (Hypomesus transpacificus). San Francisco Estuary Watershed Science. 15(4). Available: https://doi.org/10.15447/sfews.2017v15iss4art3 (October 2020).