

Memorandum

Date: August 29, 2023

To: Erin Chappell
Regional Manager
Bay Delta Region

From: Margaret Johnson
Environmental Scientist
Bay Delta Region

Subject: 2023 Summer Townet Survey Delta Smelt Abundance Index

The annual California Department of Fish and Wildlife Summer Townet Survey abundance index for Delta Smelt (*Hypomesus transpacificus*) in 2023 is 0.0. This is the eighth year in which the abundance index was equal to zero. The first zero index was reported in 2015 and has reported a 0.0 index every year since 2018 (Figure 1).

The Summer Townet Survey sampling period consists of six biweekly surveys, beginning in mid-June and ending in late August. The Delta Smelt annual index is generated from an average of the first two survey indices. During each survey, young pelagic fishes are sampled from 40 fixed stations which consist of 31 index stations and 9 supplemental non-index stations (Figure 2). These sampling stations are located in the upper San Francisco Estuary from eastern San Pablo Bay and Napa River and upstream through to the Sacramento Deep Water Ship Channel (SDWSC) and lower San Joaquin River. Survey indices for Delta Smelt are calculated by multiplying the catch at each index station by a station-specific weighting factor, summing the weighted catches of all index stations, and dividing the total by 1000. More information on index calculation can be found at on the department website for the [Summer Townet Survey \(ca.gov\)](#).

The first two surveys of 2023 were conducted during June 12-15 and June 26-30. During the first and second surveys, no Delta Smelt were collected at index or non-index stations. This pattern is somewhat consistent with low catches reported in other fish monitoring surveys in mid- to late-June. Fifteen Delta Smelt were reportedly caught by the U.S. Fish and Wildlife Service (USFWS) Enhanced Delta Smelt Monitoring Program (EDSM) 20mm Survey from early April to early June, but none were caught concurrently with the first two surveys of Summer Townet Survey. These catch numbers indicate that Delta Smelt occur at very low levels and detection is limited. Further information on Delta Smelt catch by USFWS can be found at [USFWS EDSM Daily Report](#).

Summer Townet Survey did catch a Delta Smelt during the 2023 season in the sixth survey on August 21st, at station 609 in Montezuma Slough. The fish had a 50-millimeter fork length, was unmarked, and was retained for study.

Cc: Dr. James Hobbs
Steven B. Slater
Kathy Hieb
Adam Chorzyczewski
Dr. Tim Malinich

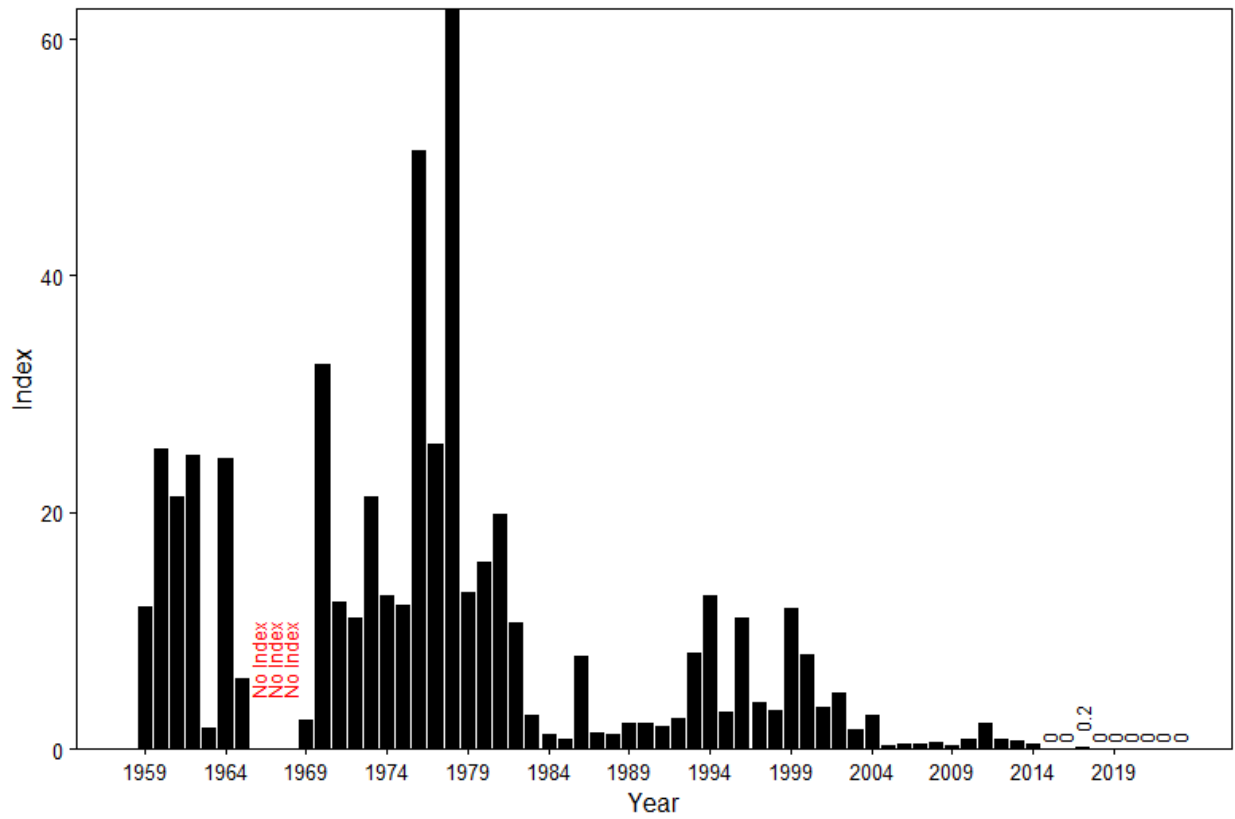


Figure 1. Summer Towsnet Survey Delta Smelt annual abundance indices 1959-2023.

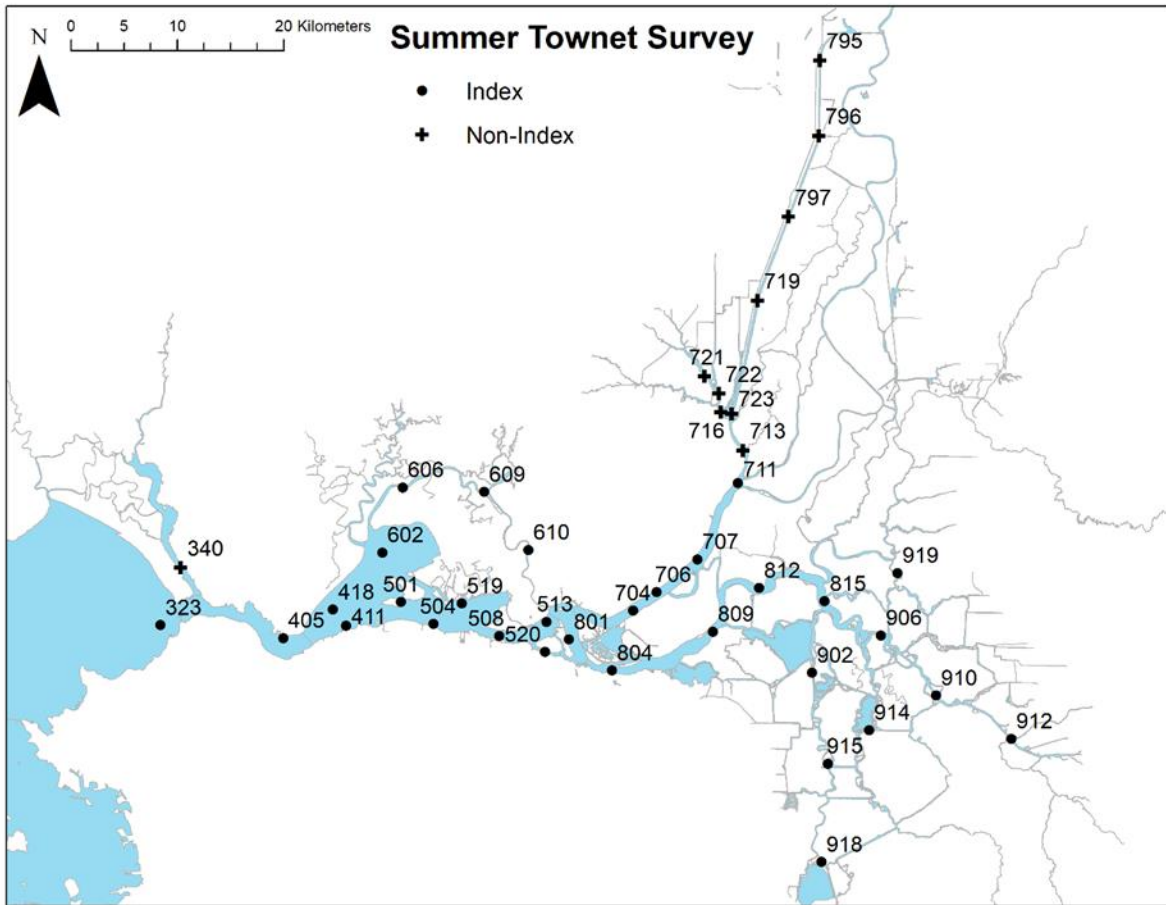


Figure 2. Distribution of Summer Townet Survey index and non-index stations in the upper San Francisco Estuary.