Interagency Ecological Program 2020 Work Plan Element
Summer Townet Survey

Project Manager and Affiliation

To be determined, CDFW

Principal Investigator and Affiliation

Timothy D. Malinich, CDFW

Costs (thousands) and Funding Sources

$342 DWR; $335 USBR

Summer Townet retrieval to the RV New Alosa

Description

The Summer Townet Survey (STN) is a long-term effort to monitor young pelagic fishes in the upper San Francisco Estuary. Since 1959, STN has sampled fixed locations from eastern San Pablo Bay to Rio Vista on the Sacramento River, and to Stockton on the San Joaquin River; and a single station in the lower Napa River. The study area was expanded in 2011 to include the Sacramento Deep Water Ship Chanel and Cache Slough. Currently, 40 stations are sampled every other week June through August using a conical, fixed-frame net, which is pulled obliquely through the water column 2 to 3 times at each station. Data collected at 31 stations are used to calculate annual relative abundance indices for age-0 Striped Bass (*Morone saxatilis*) and Delta Smelt (*Hypomesus transpacificus*). The remaining 8 stations are sampled to increase our understanding of juvenile fish abundance and distribution in the lower Napa River and the north Delta. In 2005, STN added a zooplankton net to assess fish food resources at each station and a subset of the fish collected are retained for diet analysis by CDFW researchers (see element # 062). The STN also measures water temperature, water clarity and specific conductivity. Managers and researchers use the data collected by STN to inform decisions and improve our understanding of the health of the upper San Francisco Estuary.

Need

This project is mandated by the 2008 Delta Smelt biological opinion for the combined operation of the Central Valley Project and State Water Project. While the original intent was to monitor the population of age-0 Striped Bass throughout the upper San Francisco Estuary, its scope has broadened to include other species of fish such as Delta Smelt (which is listed as threatened under the federal and state endangered species acts) and the food resources they rely upon.

Objectives

- Measure annual abundance of selected age-0 fish
- Measure factors affecting abundance and distribution of age-0 Striped Bass, Delta Smelt and other fish in the estuary
- Measure availability of summer planktonic food resources
- Examine summer diets of young Striped Bass, Delta Smelt, and other pelagic fishes

Schedule of Milestones

June- Sampling begins and is conducted every other week through August

July- Annual index of relative abundance is calculated for Delta Smelt and released to the public

August- Annual index of relative abundance is calculated for age-0 Striped Bass and released to the public

September- Data is made available on the STN webpage