State of California
Department of Fish and Wildlife

Memorandum

Date: September 4, 2025

To: Erin Chappell
Regional Manager
Bay Delta Region

From: Margaret Johnson
Environmental Scientist
Bay Delta Region

Subject: 2025 Summer Townet Survey Age-0 Striped Bass Abundance Index

The annual California Department of Fish and Wildlife Summer Townet Survey (STN) abundance index for age-0 Striped Bass (*Morone saxatilis*) in 2025 is 0.4, continuing the downward trend from 1.4 in 2023 to 0.7 in 2024 (Figure 1).

The STN sampling period consists of six bi-weekly surveys, beginning in early June and ending in mid-August. During each survey, young pelagic fishes are sampled from 40 fixed stations, which consist of 31 index stations and nine supplemental non-index stations (Figure 2). These sampling stations are located in the upper San Francisco Estuary, from eastern San Pablo Bay upstream through to the Sacramento Deep Water Ship Channel (SDWSC) and to Stockton on the lower San Joaquin River. The STN age-0 Striped Bass annual index is calculated from the two survey indices bracketing the date when the Striped Bass reach or surpass a mean fork length of 38.1 mm. At index stations, Striped Bass reached mean fork lengths of 33.6 mm during Survey 4 (July 14 - 18) and 59.4 mm during Survey 5 (July 28 - August 1). Therefore, the 2025 index was calculated using data from Surveys 4 and 5. This year, we estimated that Striped Bass reached a mean length of 38.1 mm on July 18th, late in Survey 4. More information on index calculation is available on the project website Summer Townet Survey.

The majority of age-0 Striped Bass were caught during Surveys 1 and 2. The catch was highest during Survey 1, with 202 Striped Bass caught at index stations and nine caught at non-index stations (Table 1). We were unable to sample station 723, a non-index station, during Survey 1 due to a vessel malfunction. Catches declined with each subsequent survey, dropping to seven fish by Survey 6. During the first two surveys, the highest catches of age-0 Striped Bass occurred in Suisun Marsh, an important low-salinity nursery area for young Striped Bass and other fishes (Meng et al. 1994, Meng and Matern 2001, Matern et al. 2002, Feyrer et al. 2003). During the later surveys, catches declined and Striped Bass were observed more often in the lower Sacramento River and Suisun Bay. Data from the U.S. Fish and Wildlife Service Enhanced Delta Smelt Monitoring Program (EDSM) show that the majority of juvenile Striped Bass were caught in Suisun Marsh and Suisun Bay, but some fish were caught as far upstream as

Cache Slough and the SDWSC. These fish were sampled by Kodiak trawl, and more information on EDSM catch can be obtained from the EDSM Daily Report.

According to the California Department of Water Resources, water year type indices for Sacramento Valley and San Joaquin Valley have been forecasted to be above and below normal, respectively (see DWR seasonal runoff forecasts). This follows an above normal year in 2024 and a wet year in 2023 (see Water Year Hydrologic Classification Indices). Although recent water years have been above average, age-0 Striped Bass indices show that recruitment and abundance of fish remain below historical levels.

Cc: Nicole Athearn
Steven Slater
Kathy Hieb
Dr. Tim Malinich
Colin Brennan
Stephanie Fong

References

Feyrer, F., Herbold, B., Matern, S.A., and P.B. Moyle. 2003. Dietary shifts in a stressed fish assemblage: Consequences of a bivalve invasion in the San Francisco Estuary. Environ. Biol. Fishes. 67(3):277-288. DOI:10.1023/A:1025839132274.

Matern, S.A., Moyle, P.B., and L.C. Pierce. 2002. Native and alien fishes in a California estuarine marsh: Twenty-one years of changing assemblages. Trans. Amer. Fish. Soc. 131:797–816. DOI:10.1577/1548-8659%282002%29131%3C0797%3ANAAFIA%3E2.0.CO%3B2.

Meng, L., Moyle, P.B., and B. Herbold. 1994. Changes in abundance and distribution of native and introduced fishes of Suisin Marsh. Trans. Amer. Fish. Soc. 123(4): 498-507. DOI: 10.1577/1548-8659(1994)123<0498:CIAADO>2.3.CO;2.

Meng, L., and S.A. Matern. 2001. Native and introduced larval fishes of Suisun Marsh, California: The effects of freshwater flow. Trans. Amer. Fish. Soc. 130:750-765. DOI: 10.1577/1548-8659(2001)130<0750:NAILFO>2.0.CO;2.

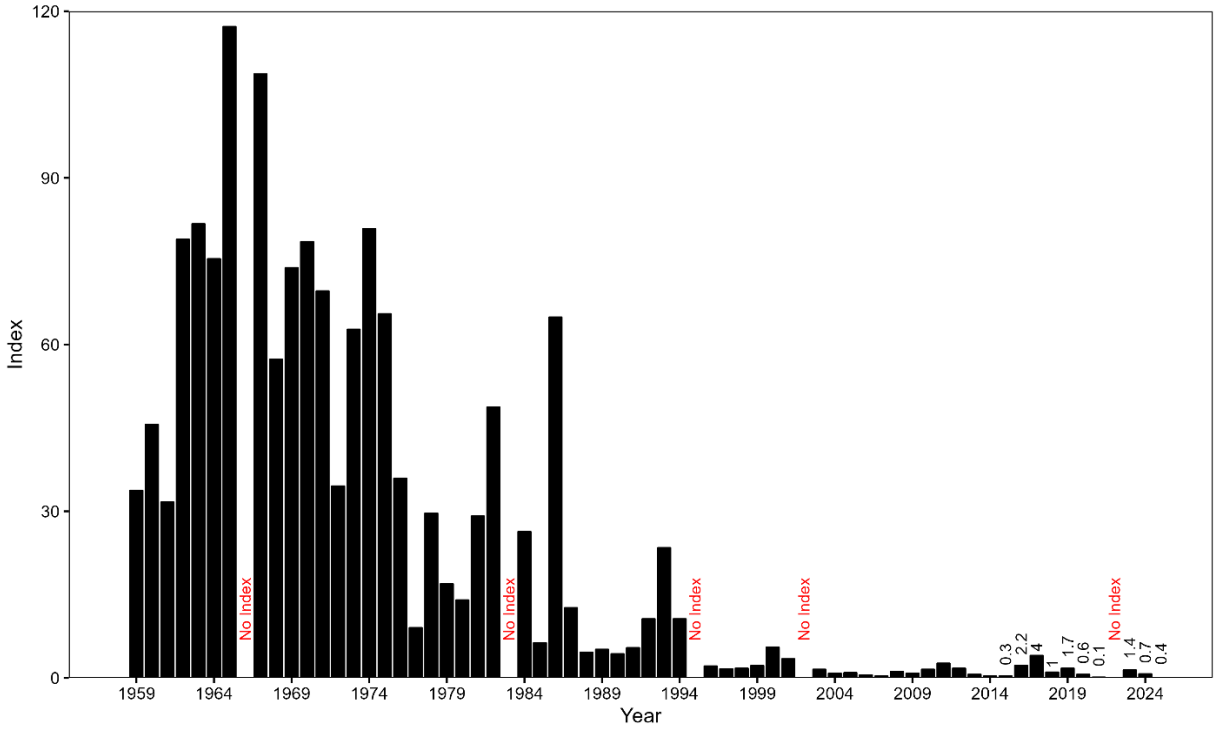

Figure 1. Summer Townet Survey age-0 Striped Bass abundance indices, 1959-2025.

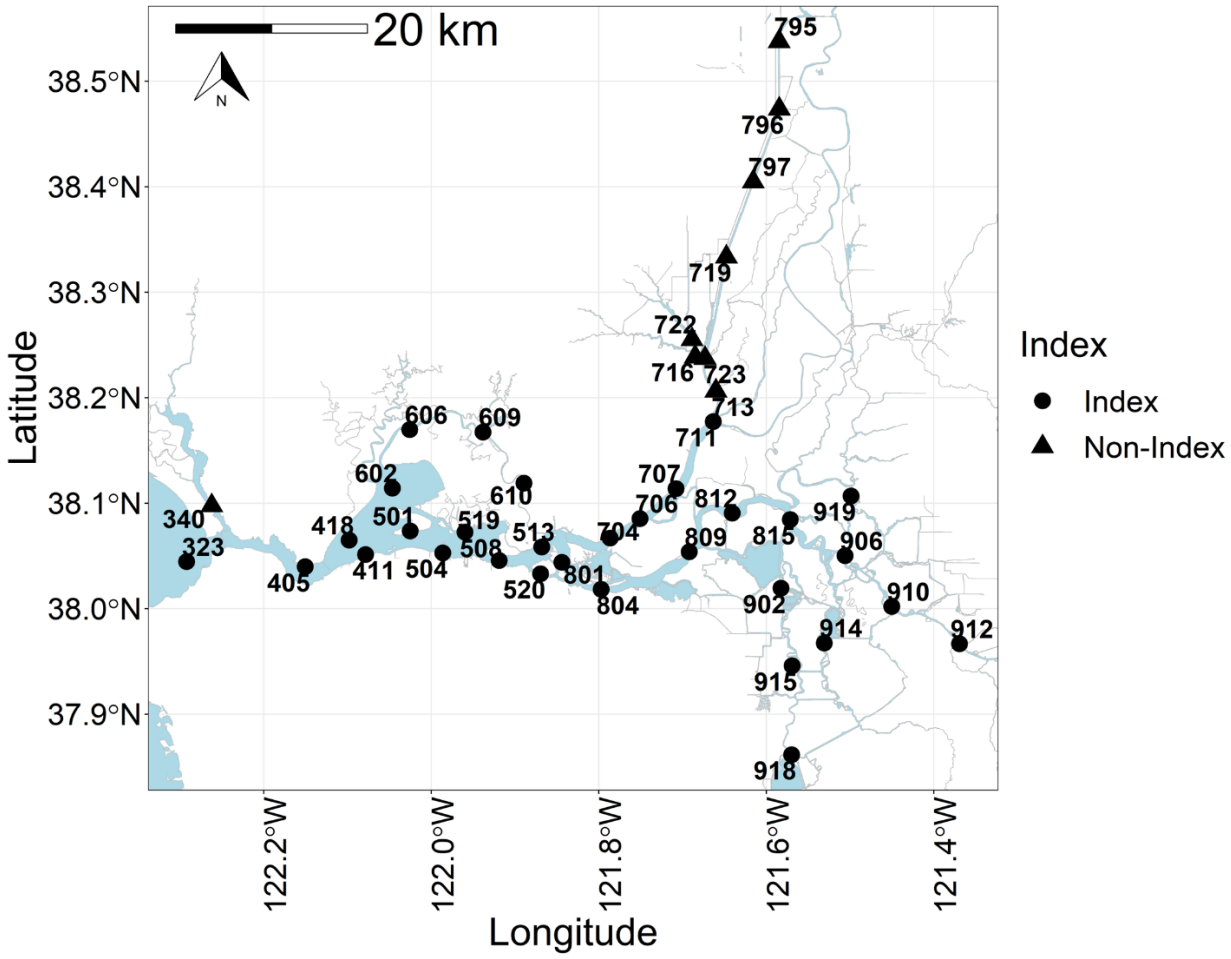

Figure 2. Map of Summer Townet Survey index stations and non-index stations within the San Francisco Estuary.

Table 1. Summer Townet Survey dates, indices, catches, and associated mean fork lengths of age-0 Striped Bass in 2025. Catch and mean fork length data from index stations (n=31) and non-index stations (n=9) shown separately. Data from station 723 not included in Survey 1.

Survey	Survey Index	Index Station Catch	Index Station Mean FL (mm)	Non-index Station Catch	Non-index Station Mean FL (mm)
Survey 1 (6/2-6/6)	3.7	202	16.9	9	15.4
Survey 2 (6/16-6/20)	3.3	125	18.4	16	22.9
Survey 3 (6/30-7/4)	1.9	54	32.8	0	NA
Survey 4 (7/14-7/18)	0.3	14	33.6	5	38.8
Survey 5 (7/28-8/1)	0.8	19	59.4	5	57.6
Survey 6 (8/11-8/15)	0.2	7	67.9	0	NA