The San Francisco Estuary (SFE) is simultaneously a central hub of water delivery in California and home to commercially important and endangered fishes, such as Chinook Salmon, Green Sturgeon, and Delta and Longfin Smelt. Extensive ecological monitoring has been conducted for over 50 years, mainly under the auspices of the Interagency Ecological Program for the San Francisco Estuary (https://iep.ca.gov/). We integrated fish catch and length data from 9 long-term monitoring surveys in the SFE. The integrated database contains survey-level data such as environmental variables and sampling effort in addition to the fish-level species, lengths, and counts. Zero catches have been filled in for any species not caught in a sample. The geographic scope includes San Francisco Bay through the upper estuary, and the timeseries spans 1959 to 2021. Sampling methods, gear, fish length metric, and other factors differ among the component surveys. Sampling designs (locations and temporal frequency) have also changed over time. Thus, it is highly recommended to inspect the documentation of the component surveys for more information on their methods.