

## Memorandum

Date: October 24, 2011

To: Carl Wilcox  
Regional Manager, Region 3  
California Dept of Fish and Game

From: Randall Baxter  
Senior Biologist  
California Dept of Fish and Game

Subject: Fall Midwater Trawl October fish abundance and distribution

The 2011 October Fall Midwater Trawl (FMWT) survey was conducted from October 3 through October 14, 2011. We report total catch from index stations and October abundance index by species and plot the summed September and October abundance indices by species for all years for comparison (Figures 1-5). Species distributions are reported as total monthly catch by region (Figure 6). The indices reported represent the first 2 of 4 monthly survey indices (September through December) that when summed comprise the annual FMWT indices. The annual FMWT indices are used to monitor species abundance trends through time.

### **Delta Smelt**

Forty-nine delta smelt were collected in October for a monthly index of 54. The summed September and October index (104) is the highest index since 2003, a considerable increase from the past seven years of September-October indices (Figure 1).

Delta smelt were collected at index stations in Suisun (n=31), Grizzly (n=1), and Honker (n=10) bays and the confluence area (n=7). An additional 3 delta smelt were collected at a non-index station in upper Cache Slough. Similarly 2 delta smelt were caught in the lower Cache Slough region in September.

### **Age-0 Striped Bass**

Seventy-one age-0 striped bass were collected in October producing a monthly index of 62. The summed September and October index (174) is the highest since 2006 (Figure 2).

The age-0 striped bass were collected at index stations in Suisun Bay (n=7), Grizzly Bay (n=41), Montezuma Slough (n=2), Honker Bay (n=9) and the confluence area (n=12). No age-0 striped bass were collected at non-index stations.

### **Longfin Smelt**

Thirteen longfin smelt were collected in October for a monthly index of 16. The summed September and October index (84) is the highest since 2006 (Figure 3).

Longfin smelt were collected at index stations in San Pablo (n=1), Suisun (n=9) and Grizzly (n=3) bays. No longfin smelt were captured at non-index stations in September or October.

### **Threadfin Shad**

Eighteen threadfin shad were collected in October producing a monthly index of 20. The summed September and October index (87) is the third lowest in FMWT history (Figure 4).

Threadfin shad were collected in Montezuma Slough (n=7), the confluence area (n=4), and south Delta (n=7). In addition, 329 threadfin shad were collected in October at the non-index stations in Cache Slough (n=259), Sacramento Deep Water Ship Channel (n=65), and the Mokelumne River (n=5).

### **American Shad**

One hundred seventy-five American shad were collected in October producing a monthly index of 204. The summed September and October index (617) is the highest since 2006 (Figure 5).

American shad were collected throughout the upper estuary, from San Pablo Bay upstream through the lower Sacramento River and south Delta. In addition, 174 American shad were collected in October at non-index stations in Cache Slough (n=107), lower Sacramento River (n=10), Sacramento Deep Water Ship Channel (n=48), and the Mokelumne River (n=9).

cc: DFG

Marty Gingras, Supervising Biologist  
Bob Fujimura, Senior Biologist  
Kathy Hieb, Senior Biologist

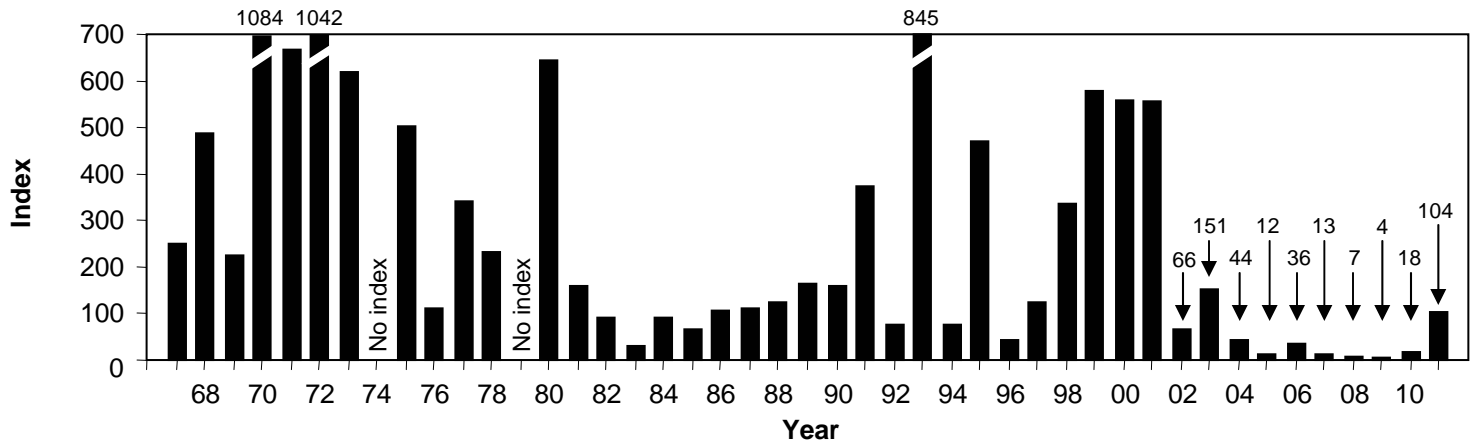


Figure 1. FMWT summed September and October delta smelt abundance indices.

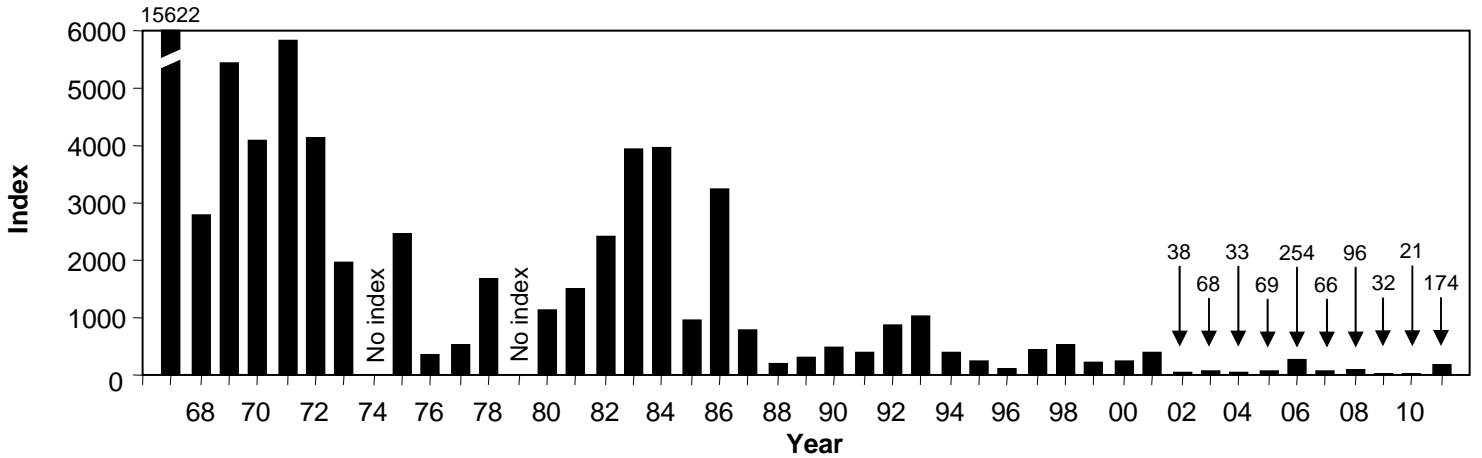


Figure 2. FMWT summed September and October age-0 striped bass abundance indices.

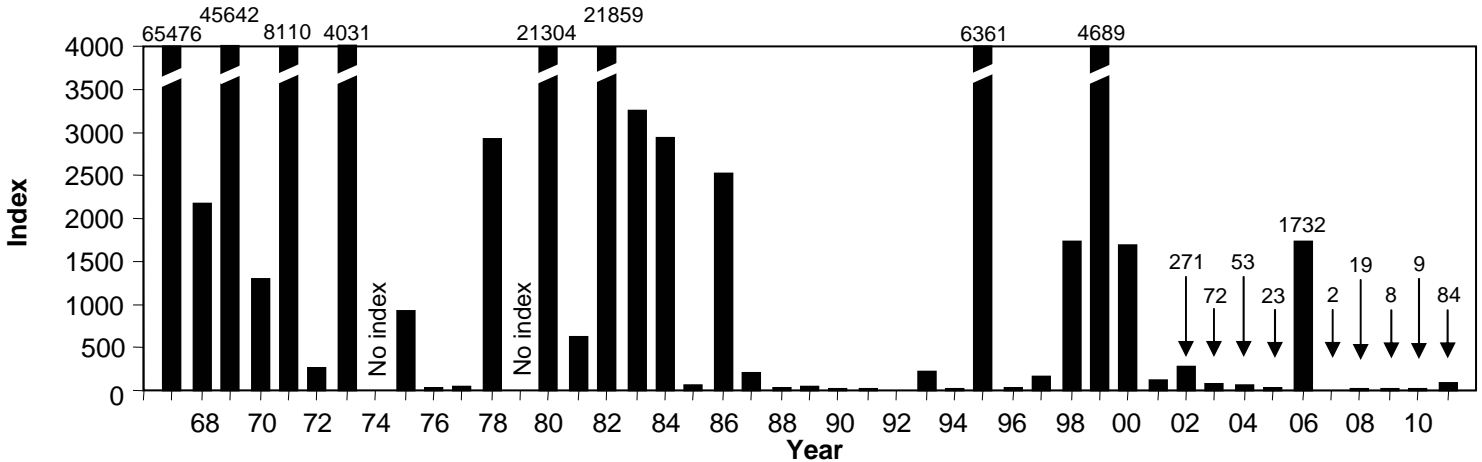


Figure 3. FMWT summed September and October longfin smelt abundance indices.

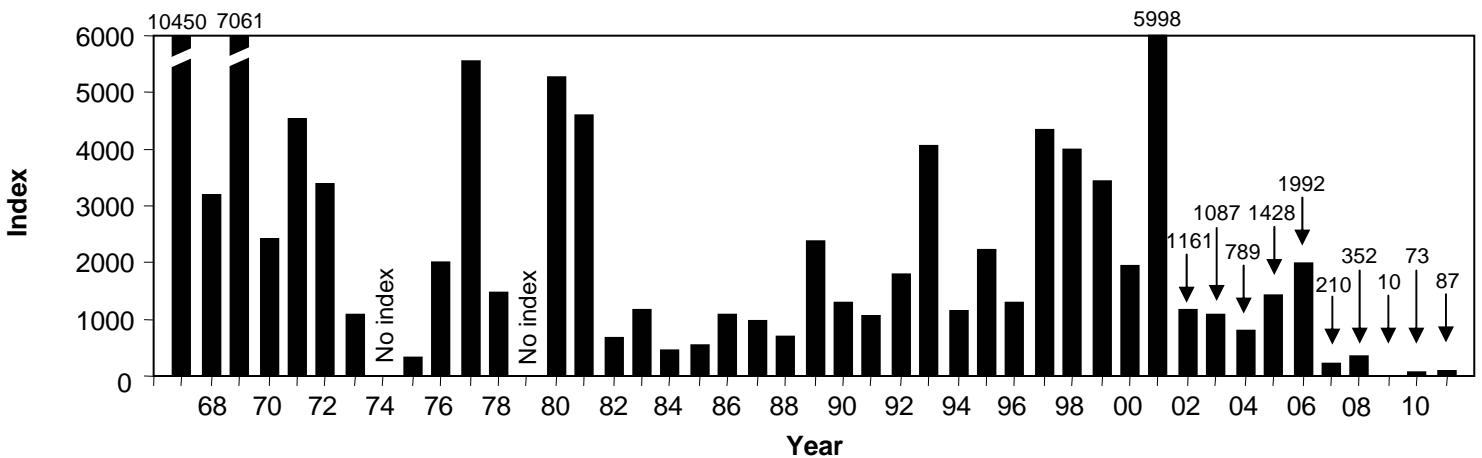


Figure 4. FMWT summed September and October threadfin shad abundance indices.

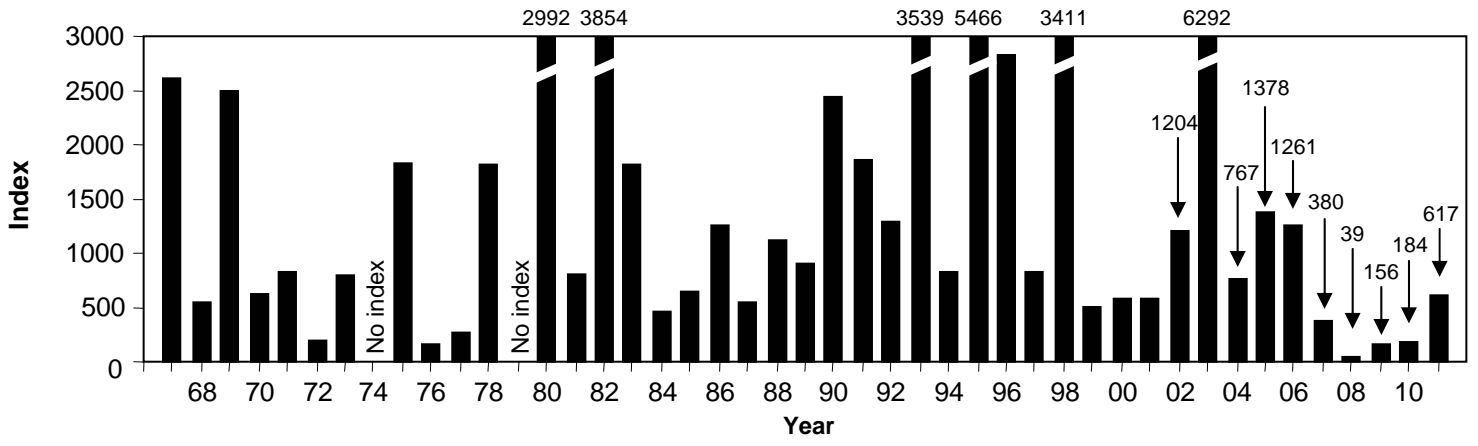
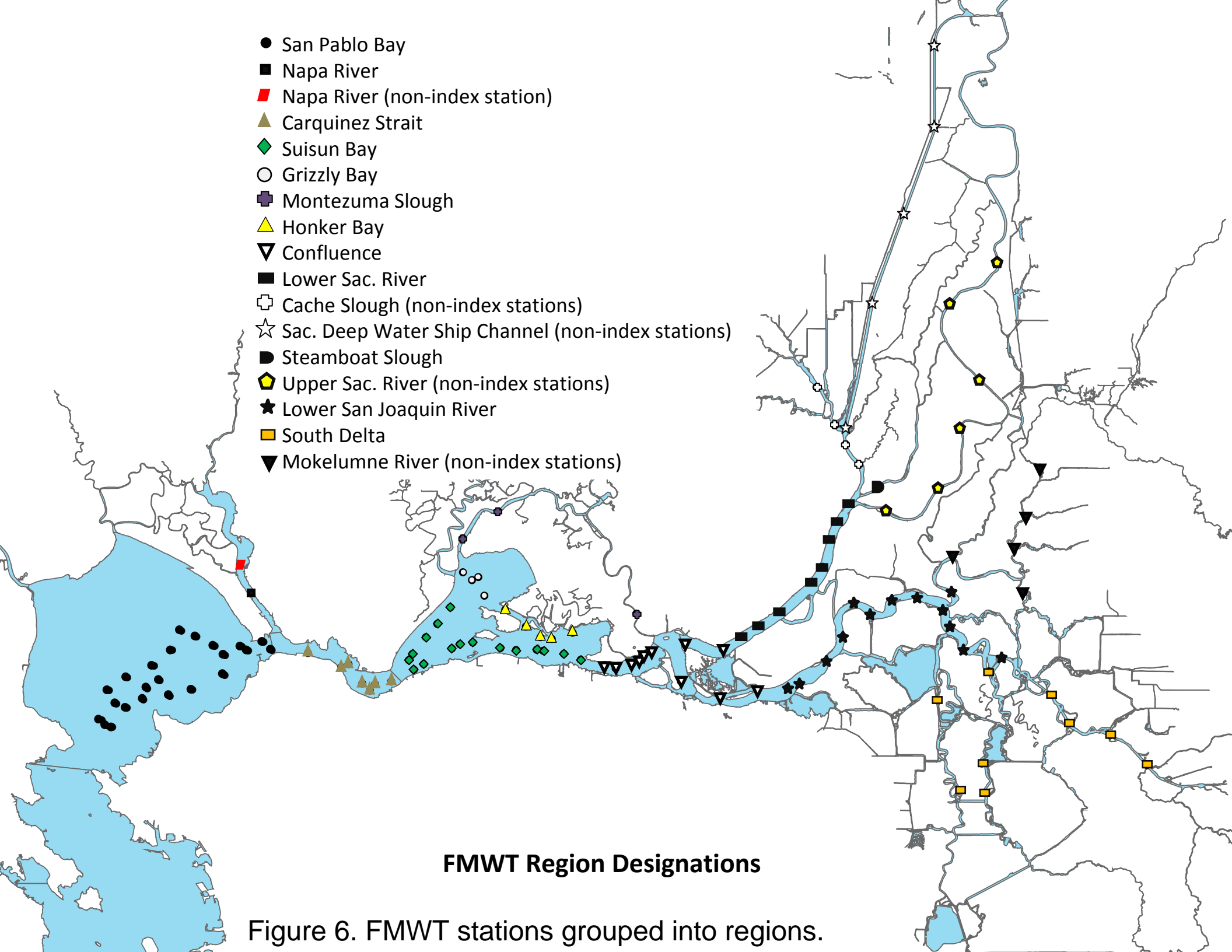


Figure 5. FMWT summed September and October American shad abundance indices.



### FMWT Region Designations

Figure 6. FMWT stations grouped into regions.