

## Memorandum

Date: October 24, 2013

To: Scott Wilson  
Acting Regional Manager, Region 3  
California Department of Fish and Wildlife

From: Dave Contreras  
Environmental Scientist  
California Department of Fish and Wildlife

Subject: 2013 Fall Midwater Trawl September-October fish abundance and distribution

The 2013 September and October (Sep-Oct) Fall Midwater Trawl (FMWT) surveys were conducted Sep 3-18 and Oct 1-16. We report total catch from index and non-index stations during Sep-Oct. We also plot and compare the summed Sep-Oct abundance indices by species for all years (Figures 1-5). Species distributions are reported as total monthly catch by region.

The indices reported here represent the first 2 of the 4 planned monthly survey indices (September through December) that comprise the annual FMWT indices. The annual FMWT indices are used to monitor species abundance trends through time.

### **Delta Smelt**

Four Delta Smelt were collected in September for an index of 4 and 3 were collected in October for an index of 3. The 2013 Sep-Oct abundance index (7) is comparable to low abundance index years 2005-2010, 2012 (Figure 1).

In September, Delta Smelt were collected at Honker Bay (n=2), the Confluence (n=1), and the lower Sacramento River (n=1). No fish were collected at non-index stations.

In October, fish were collected at the Confluence (n=2) and the lower Sacramento River (n=1). No fish were collected at non-index stations.

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

Fourteen age-0 Striped Bass were collected in September for an index of 18 and 5 were collected in October for an index of 5. The 2013 Sep-Oct index (23) is the second lowest in FMWT history (Figure 2).

In September, Striped Bass were collected at index stations in Carquinez Strait (n=1), Suisun (n=1) and Honker bays (n=2), the Confluence (n=1), and the lower Sacramento River (n=9). No fish were collected at non-index stations during September.

In October, they were found in Honker Bay (n=1), the Confluence (n=2), and the lower Sacramento River (n=1). One additional fish was collected in the Cache Slough.

### **Longfin Smelt**

Five Longfin Smelt were collected in September for an index of 8 and 14 were collected in October for an index of 28. The 2013 Sep-Oct index (36) is comparable to very low indices that have occurred in recent years (Figure 3).

In September, Longfin Smelt were collected in both San Pablo (n=1) and Suisun (n=3) bays, and Montezuma Slough (n=1). No fish were collected at non-index stations.

In October, fish were collected in Carquinez Strait (n=10), Suisun Bay (n=1), the Confluence (n=1), and the lower Sacramento River (n=2). No fish were collected at non-index stations.

### **Threadfin Shad**

Seven Threadfin Shad were collected in September for an index of 9 and 51 were collected in October for an index of 61. The 2013 Sep-Oct index (70) is the third lowest in FMWT history (Figure 4).

In September, Threadfin Shad were collected in Honker Bay (n=1), the lower Sacramento (n=3) and San Joaquin (n=2) rivers, and the south Delta (n=1). At non-index stations, 705 fish were collected in Cache Slough (n=654) and the Sacramento Deep Water Shipping Channel (SRDWSC) (n=51).

In October, fish were collected at similar locations that included the Confluence (n=9), the lower Sacramento (n=17) and San Joaquin (n=24) rivers, and the south Delta (n=1). At non-index stations, 542 fish were collected in Cache Slough (n=99) and the SRDWSC (n=443).

### **American Shad**

In September, 63 American Shad were collected for an index of 74 and 48 were collected in October for an index of 61. The 2013 Sep-Oct index (135) is the second lowest on record (Figure 5).

In September, American Shad were collected in Carquinez Strait (n=2), Suisun Bay (n=3), Grizzly Bay (n=2), Honker Bay (n=21), the Confluence (n=8), and the lower Sacramento (n=24) and San Joaquin (n=3) rivers. At non-index stations, fish were collected in Cache Slough (n=34), the SRDWSC (n=38), and Steamboat Slough (n=2).

In October, fish were collected in San Pablo Bay (n=1), Suisun Bay (n=2), Montezuma Slough (n=1), Honker Bay (n=4), the Confluence (n=5), the lower Sacramento (n=21) and San Joaquin rivers (n=8), and the south Delta (n=6). At non-index stations, fish were collected in Cache Slough (n=6), the SRDWSC (n=83), and the Mokelumne River (n=2).

cc: Marty Gingras  
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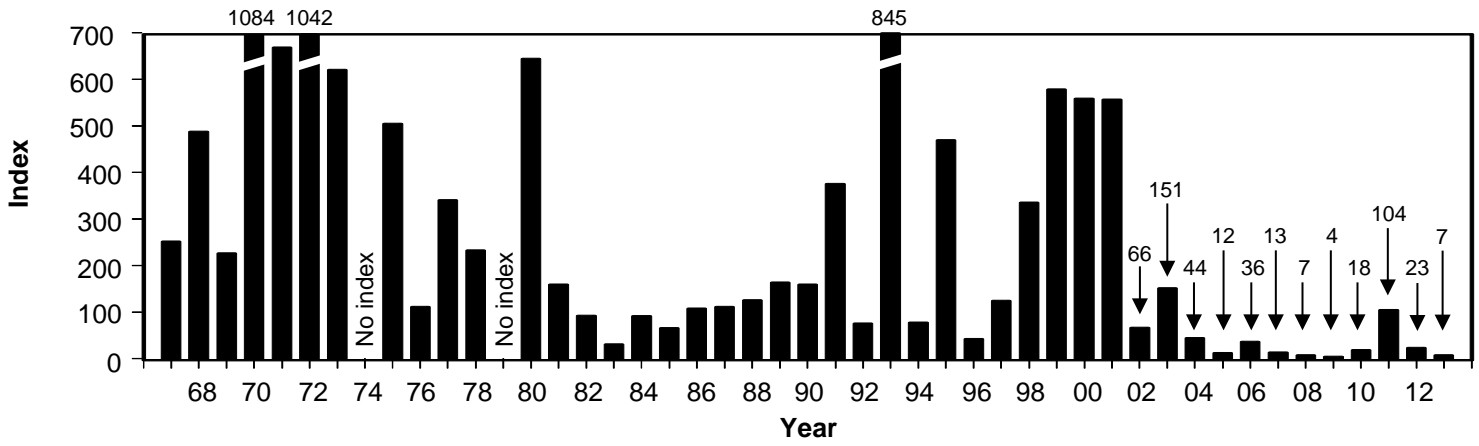


Figure 1. Delta smelt FMWT Sep-Oct abundance indices, 1967-2013.

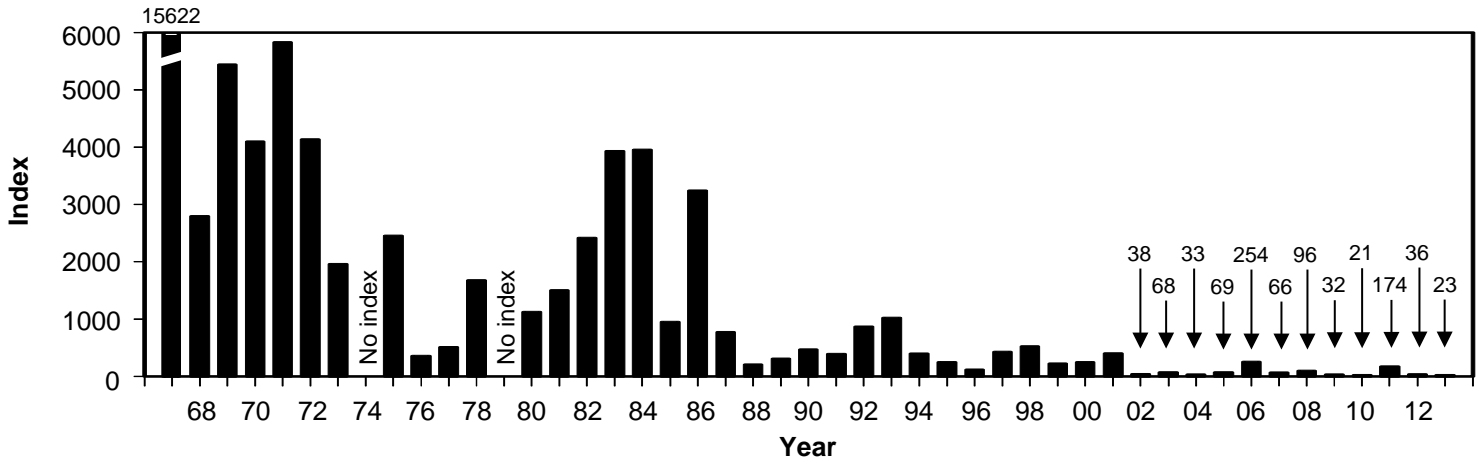


Figure 2. Age-0 striped bass FMWT Sep-Oct abundance indices, 1967-2013.

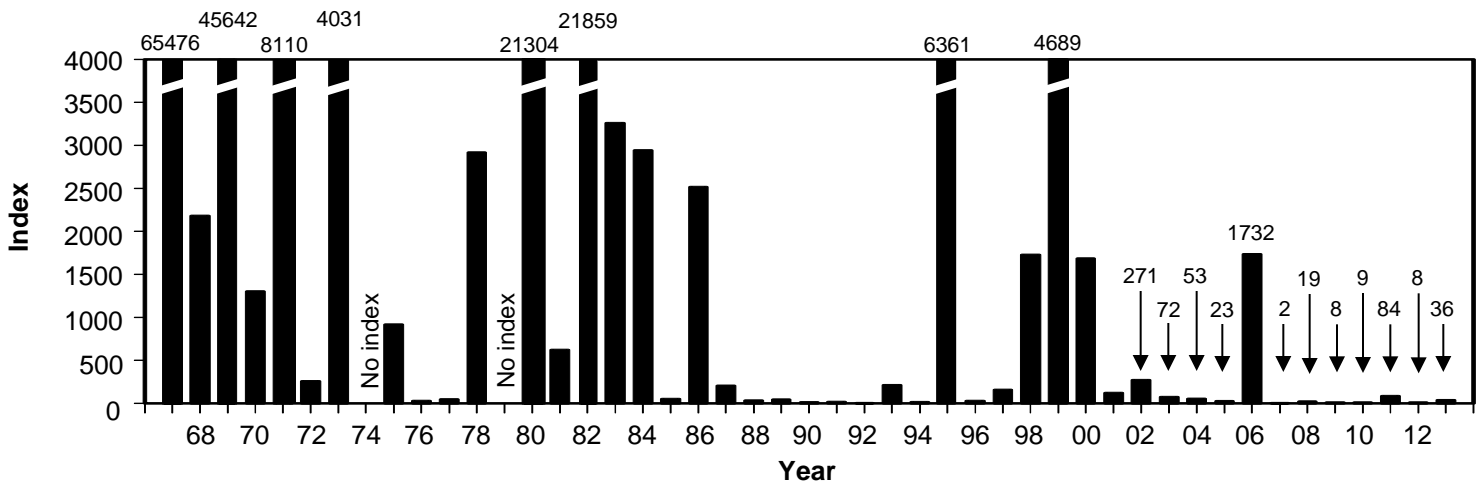


Figure 3. Longfin smelt FMWT Sep-Oct abundance indices, 1967-2013.

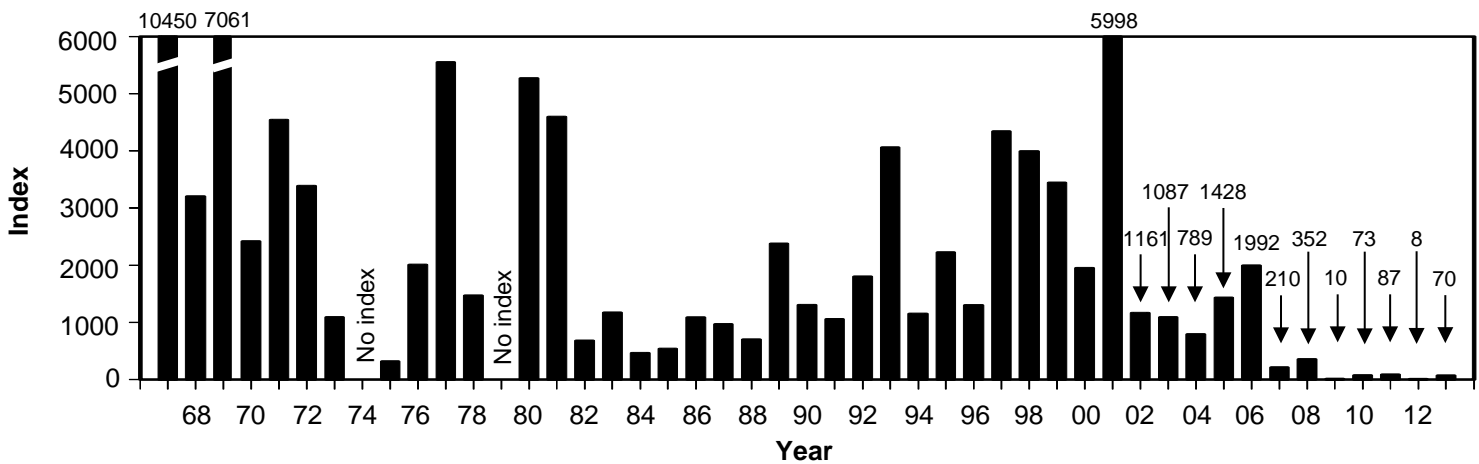


Figure 4. Threadfin shad FMWT Sep-Oct abundance indices, 1967-2013.

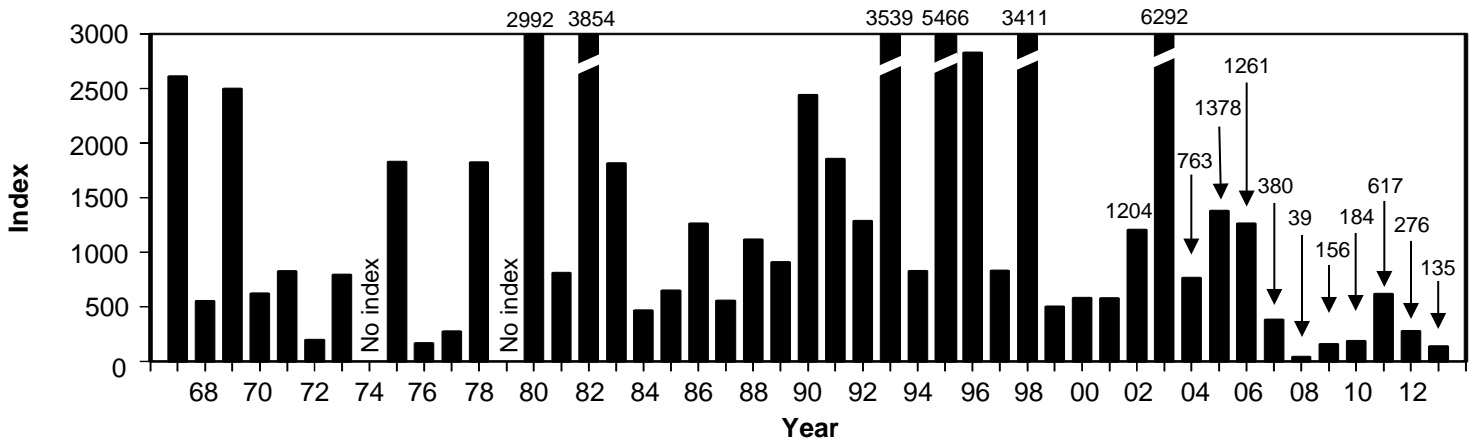


Figure 5. American shad FMWT Sep-Oct abundance indices, 1967-2013.