

Figure 4  
Annual Abundance of O+ Dungeness Crab,  
Otter Trawl, 1980-1995  
Index period is May-July.

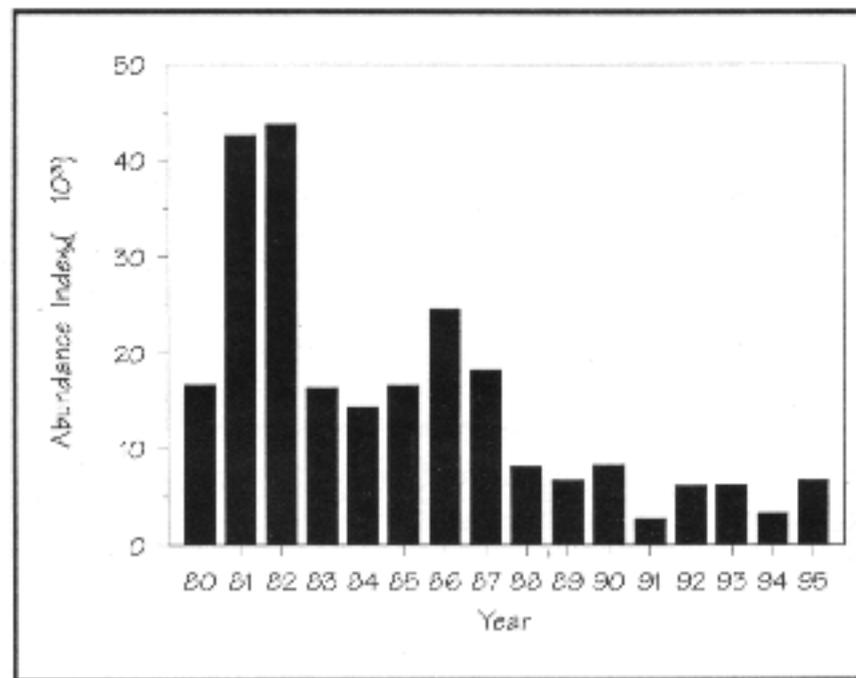


Figure 5  
Annual Abundance of Young-of-the-Year Shiner Perch,  
Otter Trawl, 1980-1995  
Index period is May-October.

## Splittail and Longfin Smelt

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Splittail young-of-the-year numbers increased substantially in 1995. However, different indices present different pictures of the relative magnitude of this increase (Figure 1 and 2). In 1995, thousands of young juveniles were collected in real-time monitoring, millions were salvaged at the SWP and CVP fish facilities, and 65 were collected during fall midwater trawl sampling. (The fall midwater trawl survey, a midchannel sampling program, is not particularly effective in capturing splittail.) Nonetheless, the 1995 fall midwater trawl splittail index ranks third highest since its initiation in 1967. The 1995 bay study otter trawl young-of-the-year splittail index was over three times that of 1982, the next highest index, and was more like what might have been predicted based on real-time monitoring and salvage splittail numbers.

Longfin smelt began a population recovery in 1993, and the 1993 year class, spawning at age-2, contributed to a more substantial increase in 1995 (Figure 3 and 4). Longfin smelt abundance in the fall midwater trawl has varied by 3 orders of magnitude since 1967. Fall midwater trawl data suggest that to reach historical high abundance levels, the longfin smelt population requires two or three successive generations hatched and reared during favorable high outflow conditions.