

2011 USFWS Delta Smelt Recovery Index

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As defined in the 1995 USFWS Sacramento-San Joaquin Delta Native Fishes Recovery Plan, recovery of delta smelt requires the satisfaction of both distributional and abundance criteria. Information from the CDFG's September and October Fall Midwater Trawl surveys are used to determine if these criteria have been met. Neither the abundance nor the distributional recovery criteria, as described below, were achieved in 2011.

Distributional Criteria

To meet the distributional criteria, delta smelt must be present in:

- 2 out of the 11 stations in the North Central Delta (Zone A),
- 5 of the 9 stations in Sacramento River and Montezuma Slough (Zones B1 and B2), and
- 6 of the 15 stations in Suisun Bay (Zone C).

Criteria for distributional recovery are as follows:

- distributional criteria must be met in all zones 2 of 5 consecutive years,
- in at least 2 zones in 1 of the remaining 3 years, and
- in at least 1 zone in the remaining 2 years.

A failure in all zones in any year will result in the start of a new 5-year evaluation period for distributional criteria.

Abundance Criteria

In order for the species to obtain recovery based upon abundance criteria, the delta smelt relative abundance index (1) must meet or exceed 239 in 2 out of 5 years and (2) 2-year average must not fall below 84. If any of those conditions are not met, the 5-year recovery period will start again.

Length of Restoration and Recovery Period

Delta smelt will be considered for delisting when abundance and distributional criteria have been met over a 5-year period that includes 2 sequential years of extreme outflows. However, delisting may not take place until there is reasonable assurance that long term solutions to Delta problems are in place.

2011 Delta Smelt Recovery Metrics

Full distributional criteria were not met and no abundance criteria were met (Table 1). Thus, a 5-year recovery period will start again.

Table 1. Delta smelt distributional and abundance information from September and October Fall Midwater Trawl survey data for the present year and preceding 4 years.

Year	Number of stations where delta smelt were captured in each zone.			Delta smelt relative abundance		Water-Year Type
	North Central Delta	Sacramento River and Montezuma Slough	Suisun Bay	Index	2 year Average	
2007	0	2	1	5	13	Dry
2008	0	1	0	2	3.5	Critical
2009	0	1	0	1	1.5	Dry
2010	0	2	3	11	6	Below
2011	1	1	12	55	33	Wet*

* Water year type for 2011 obtained from John King, CA DWR.

