Egg-to-fry survival of winter Chinook—record low in 2014

![Graph showing egg-to-fry survival rate over brood years from 1995 to 2015. The survival rate is relatively low and stable from 2005 to 2010, with a significant drop in 2014.]
Moderate parental cohort + low survival -> very low natural production in 2014
The good news: hatchery smolt survival was good
The drought and the blob are related

October 2013 – January 2014

June-July-August 2014

September - December 2014

Dec 25 – March 2, 2015
SST anomalies in 2014-15
2014/15 SSTa

March 2, 2015

Near Cape Mendocino

Monterey Bay

San Clemente Basin

NOAA CoastWatch

SST Anomaly, Blended, Optimum Interpolation (OI), Ver. 2, NCDC AVHRR, 0.25 degree, Global

Data courtesy of NOAA NCDC
Including environmental measures in the SI forecast

Winship et al. 2015. CJFAS dx.doi.org/10.1139/cjfas-2014-0247