



IEP Science Highlights

Director's Update

March 2015

Monitoring Highlights

- Delta Smelt: The 2014 Fall Midwater Trawl (FMWT) survey **Delta Smelt** abundance index was 9, making it the lowest on record.
- Other Pelagic Fishes: The FMWT indices for other pelagic fishes are similarly low. The indices include: age-0 **Striped Bass** 59 (3rd lowest on record); **Longfin Smelt** 16 (2nd lowest); and **Threadfin Shad** 282 (6th lowest).
- Salmonids: Early WY 2015 monitoring suggests very low production of juvenile Winter Run Chinook Salmon. Most of these fish are currently thought to be in the Delta.
- Drought Monitoring: IEP staff and resources are being heavily utilized in WY 2015 to provide early warning data on fish abundance (e.g. trawling) and habitat conditions (e.g. turbidity).

Synthesis

- Management Analysis and Synthesis Team (MAST): MAST released its report on the Delta Smelt conceptual model in January.
(http://www.water.ca.gov/iep/docs/Delta_Smelt_MAST_Synthesis_Report_January%202015.pdf)
- Drought Assessment: Required as part of 2014 Drought Operations Plan.

Smelt

- The IEP & DFW staff has used the MAST model to help analyze the response of Delta Smelt, Longfin Smelt, and their habitat to current drought conditions.
- Based primarily on analysis of ongoing monitoring studies, and additional work on aquatic weeds, Delta Smelt, predators, and *Microcystis*.
- Milestones: Progress Report (Released January 2015); IEP Annual Workshop Presentation (March 2015); and Final report (October 2015).

Winter-Run Chinook Salmon

- Analysis of responses of Winter-Run to drought conditions and operations in WY2014.
- Milestones: Report (Early 2015); IEP Workshop Presentation (March 2015).
- Tidal Wetlands: The MAST conceptual model is also being used to develop well integrated fish and habitat monitoring plans by the IEP Tidal Wetlands Project Work Team.
- Salmon and Sturgeon Assessment, Indicators, Life Stages (SAIL). This new synthesis team held its first organizational meeting on February 13. Topics included the approach, process, deliverables, membership, and outreach.

Workshops and Work Teams (see <http://www.water.ca.gov/iep/activities/calendar.cfm>)

- Delta Science Program and the UC Davis Center for Aquatic Biology & Aquaculture (CABA).
 - Several IEP studies were featured at a March 3, 2015 symposium, "Sturgeon in the Sacramento/San Joaquin Watershed: New insights to support conservation and management."
- The IEP Annual Meeting is scheduled for March 18, 19, and 20 at Lake Natoma Inn in Folsom.
 - Key topics include Delta Smelt, new technologies, Suisun Marsh, predation, entrainment, life cycle modeling, and drought effects.