



Interagency Ecological Program 2023 Work Plan Element Delta Smelt Life Cycle Model

Project Manager and Affiliation

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Annual Costs (thousands) and Funding Sources

DWR and USBR: In-kind time of collaborators

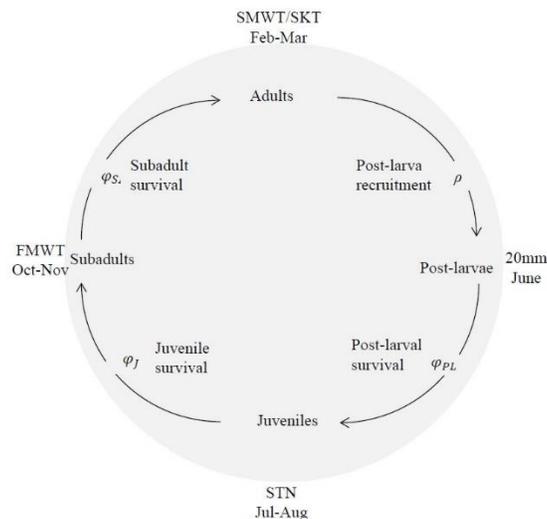


Figure: *Conceptual model of Delta Smelt life cycle*

Description

The Delta Smelt Life Cycle Model (DSLCLM) is a state-space model designed (a) to provide a quantitative, empirically-based decision support tool for assessing the effects of management actions and environmental conditions on the population dynamics of Delta Smelt, (b) to suggest management actions, (c) to provide guidance and recommendations for future data needs and data collection procedures, and (d) to carry out Population Viability Analysis (PVA) to predict the long term consequences of particular actions.

Need

The DSLCLM addresses the need for data-based tools designed to improve the understanding of Delta Smelt population dynamics, assess the effectiveness of potential population management strategies, predict the population trajectory under a variety of

environmental and management scenarios, and ultimately aid in the development of a recovery plan.

Objectives

- Refine Delta Smelt Life Cycle Model(s) and assess data gaps.
- Assess factors that may influence reproductive success and survival processes.

Schedule of Milestones

Throughout 2023: Continued development of technical notes related to DSLCM efforts.

Throughout 2023: Submitting and/or revising manuscripts to peer reviewed journals on DSLCM work as appropriate.