



CALFed Progress Questionnaire
California Sea Grant College Program

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ProjectYear_2A 1st Year ProjectNo_2C R/SF-9
TypeQuestionnaire_2B Interim Questionnaire

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Project Information

ProjectNo_2C R/SF-9 StartDate_3a 11/1/2005 EndDate_3b 8/8/08
ProjectTitle_4 The application of otolith geochemical to determine survival, stock structure and the relative impact of water exports on the threatened delta smelt.

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Community Mentor (for additional please see #9)

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Additional Research Mentors and Community Mentors

Additional Research Mentors_8

Additional Community Mentors_9

Project Objectives: Please type your responses, and answer the questions in a style appropriate for laymen.

ProjectObjectives_10

Objectives
1. Determine the cohort structure (spatial/temporal) of the adult population. -Otolith geochemical signatures of natal habitats -Otolith hatchdate distribution from ages.
2. Compare growth rates of adults to growth rates of juveniles. -Otolith size-at-age backcalculations.
3. Quantify the cohort structure (spatial/temporal) of juveniles salvaged at CVP and SWP. -Otolith geochemistry and hatchdates
4. Integrate data from first three objectives in relation to water temperatures from CDEC and DWR water monitoring stations. -Examine hatchdate distribution in relation to temperature. -Examine growth rates of aged cohorts in relation to temperature. -Examine cohort structure (spatial and temporal) in relation to temperature. -Examine cohort structure (spatial/temporal) of salvaged fishes in relation to temperature.

when contingents are exterped. This has particular relevance to the POD, where prey levels in the low-salinity habitat have declined.

BENEFITS AND APPLICATIONS: Suggest the relevance of these new findings to management. Describe any accomplishment, that is significant effects your project has had on resource management or user group behavior. CALFED is looking for "management cue" (see <http://science.calwater.ca.gov/pdf/soemgmtcues.pdf>).

BenefitsApplic_13

My data suggests that a significant proportion of larvae in the south delta do not contribute to the adult population. In addition a majority of the fish are the brakish water rearing fish, except during dry years when X2 is located at the confluence of the delta. This information may have important underlying mechanisms such as hydrological change, relationships between abundance and X2 and the influence of freshwater exports.

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COOPERATING ORGANIZATIONS: List those agencies and/or persons who provided financial, technical or other assistance to your project since inception. Describe the nature of their collaboration.

CoopOrganiz_15

Center for ICP-MS, UC Davis has assisted in otolith geochemical studies.

AWARDS: List any special awards or honors that you, or mentor or members of the research team, have received during the duration of this project.

Awards_16

none

KEYWORDS: List keywords that will be useful in indexing your project.

Keywords_17

Otolith, Strontium Isotopes, Delta Smelt, POD, ICP-MS

