



Subcommittee on Bay-Delta

Pilot Propagation Study

Delta Smelt and Native Species Preservation Project

Item 3b

April 25, 2023

Background

- Culturing Delta Smelt on Bouldin Island
 - Why?
 - Delta Smelt listed in 1993
 - Supplementation Research
 - Research needs
 - Improve release methods
 - Improve Survival and Recruitment



Purpose – Addressing Unknowns to inform experimental release & supplementation



Optimize





THE DELTA SMELT DEPLOYMENT

EXPLORING THE EXPANSION OF FISH POPULATIONS
AND CULTURING OPPORTUNITIES



Method

- Subadults from culture facility
- Transport in carboys
- Transfer in fish cages
- Nov 21, 2022 to Jan 4, 2023



Study Partners

- Metropolitan Water District
 - Shawn Acuña
 - Russell Ryan
 - Jack Cronin
- UC Davis
 - Nann Fangue
 - Richard Connon
 - Florian Mauduit
 - Dennis Cocherell
 - Tien Chieh-Hung
- US Geological Survey
 - Fred Feyrer
- Dept of Water Resources
 - Melinda Baerwald
 - Daphne Gille
- US Fish & Wildlife Service
 - Evan Carson
- Others



Priority Study Question

Can Delta Smelt
thrive in an
impoundment
under natural
feeding?



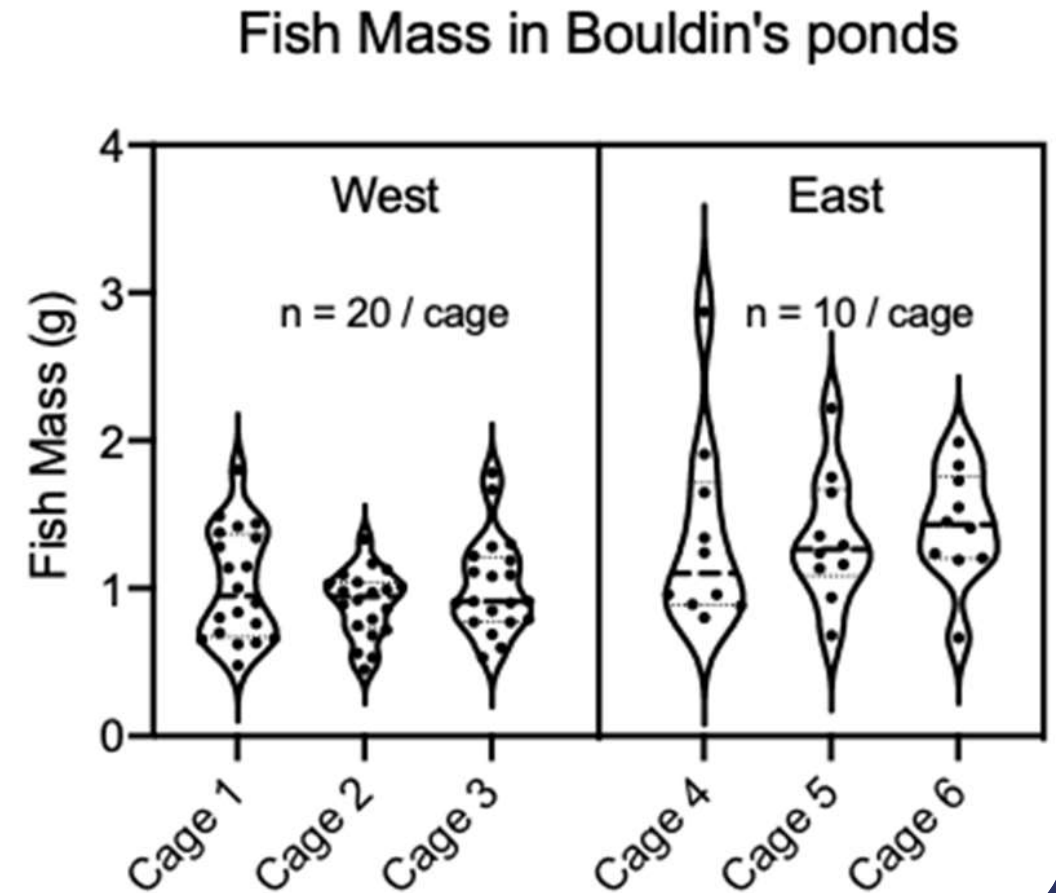
Deployments

- First
 - Nov 2022 – Jan 2023
 - Warm to cold
- Second
 - Feb 2 to Mar 15
 - Cold to warmer



Results

- 97 % Survival
- Growth
 - East > West pond
- Pond Condition
 - Salinity
 - Temperature
 - Dissolved oxygen
 - Food



Next Steps

- Fall/Winter 2023
- Funding support
- Inform
 - Marsh-Pond Complex
 - Supplementation



