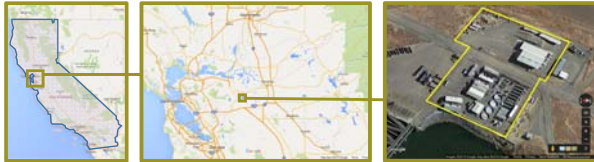
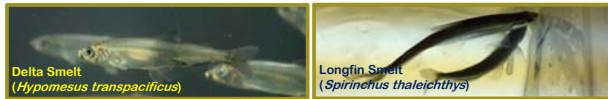


FISH CONSERVATION AND CULTURE LABORATORY

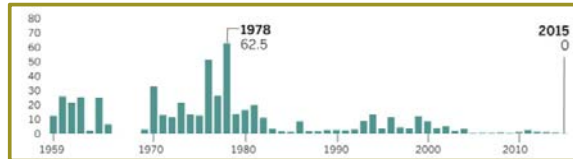
What is FCCL?



Fish Conservation and Culture Laboratory (FCCL) is an off-campus fish culture and research facility located about 80 miles south of Davis near Byron, CA, and is a part of the Department of Biological and Agriculture Engineering, UC Davis. The main focus of the FCCL is on endangered Delta Smelt and threatened Longfin Smelt.

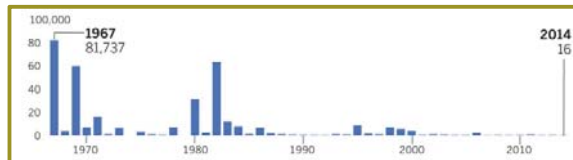


The effort of culturing Delta Smelt, dates back to 1992, when they were proposed for listing. In 2007, when the abundance index of Delta Smelt had declined to worrisome levels, the state Dept. Fish and Game and the US Dept. Fish and Wildlife Service, suggested culturing the species under genetically management and thus began the refuge population.



Annually estimated abundance index for Delta Smelt

The FCCL has attempted to rear Longfin Smelt as it is another example of a wild population that has become compromised. At the moment, there are still some challenges to culture Longfin Smelt, and therefore, the availability of Longfin Smelt to researchers is highly variable from one year to another.



Annually estimated abundance index for Longfin Smelt

Refuge Population

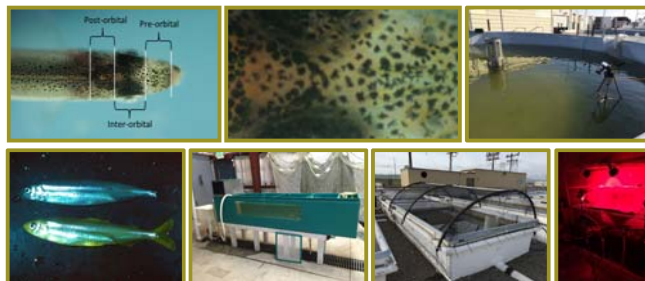


The program is a breeding and rearing plan for creating the Delta Smelt refuge population. The goal is to minimize the deviation from the wild population, both phenotypically and genotypically. The FCCL and the Genomics Variation Lab at UC Davis have developed a genetic management plan to maintain near 300 families per year and maximize genetic diversity. Currently the refuge population is in the 11th generation.



Research Projects

The FCCL also conducts experiments that yield information on the basic biology of the smelts, as well as applied experiments that are useful for improving culture techniques. Significant effort has been put toward research projects on a variety of topics, including: fish marking, reproduction, behavior, feeding, aquacultural engineering and live prey culture.



Collaboration

The FCCL is constantly doing collaborative work with federal and state agencies, private companies, as well as research groups at UC Davis, on projects include but not limited to: natural stimuli, contamination exposure, modeling, egg treatment, tagging, and food limitation. Listed below are the researchers with who we recently collaborated.

- US Bureau of Reclamation
- US Fish and Wildlife Service
- Western Fisheries Research Center, USGS
- California Dept. Water Resources
- Aquatic Health Program, UC Davis
- Genomics Variation Lab, UC Davis
- Prof. Connon, UC Davis
- Prof. Fangue, UC Davis
- Dr. Hobbs, UC Davis
- ICF International
- Hanson Environmental



Funding Sources

