

IEP Data Management Plan

Project Element Number:

325

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Study Title

Enhanced Delta Smelt Monitoring Program (EDSM)

Principal Investigator

Denise Goodman; Lodi Fish and Wildlife Office, U.S. Fish and Wildlife Service
Denise_Goodman@fws.gov, 209-334-7713

Point of Contact

Claudia Macfarlane; Lodi Fish and Wildlife Office, U.S. Fish and Wildlife Service
Caludia_Macfarlane@fws.gov, 209-334-7781

Data Description

Data collection occurs year-round via Kodiak trawls and 20 mm gear to support the goal of sampling Delta Smelt at all life stages. The objective of EDSM is to enhance the data available for calculating life stage-specific estimates of abundance and distribution for Delta Smelt at management-relevant time scales. Sampling sites are chosen at random and geographic information is recorded for all sites. All fish collected are identified (in field when possible, in lab for early life stages) and recorded. In addition to fish information, environmental data are collected for each sampling event (including DO, conductivity, temperature, and turbidity). Genetic verification data for Delta Smelt and other species of interest is also provided.

EDSM_20mm dataset: 11,474 KB

EDSM_KDTR dataset: 52,881 KB

Related Data

Other sampling programs exist that yield estimates of Delta Smelt abundance, distribution, survival, and proportional entrainment risk: the Spring Kodiak Trawl, 20-mm Survey, Summer Towner, and the Fall Midwater Trawl (CDFW). At times, paired samples with EDSM may be taken as part of additional research projects. For example, samples of zooplankton, eDNA, chlorophyll-a, harmful algal constituents, otolith, fish health, or stomach contents may be collected at EDSM sites as part of the Directed

Outflow Project (Bureau of Reclamation, DWR, CDFW). Paired data may also be collected for the Delta Smelt Experimental Release Technical Team.

Metadata

A metadata file lists the details of sampling design, methods, frequency, units, species abbreviations, and other pertinent information concerning EDSM operations. The metadata file also documents changes to EDSM that have occurred over time. The file is available on the [Environmental Data Initiative \(EDI\) Data Portal, where the EDSM data set through November 2021 is posted](#). URL:

https://portal.edirepository.org/nis/simpleSearch?defType=edismax&q=EDSM&fq=-scope:ecotrends&fq=-scope:lter-landsat*&fl=id,packageid,title,author,organization,pubdate,coordinates&debug=false.

Storage and Backup

The EDSM Kodiak trawl data are located on a SQL server housed at US Fish and Wildlife Service offices in Denver, CO. The 20 mm data are located on the shared server housed in the Lodi Fish and Wildlife Office. Physical data sheets are stored in binders in the Lodi Fish and Wildlife Office. Data sheets are scanned after entry and saved onto an external hard drive and into a folder on the shared server in the Lodi Fish and Wildlife Office.

Archiving and Preservation

An archive is maintained at the Lodi Fish and Wildlife Office containing originals and copies of datasheets. The online Kodiak trawl database is backed up by the server administrators in the Denver, CO US Fish and Wildlife Service office. If the Denver, CO server storing the database becomes unavailable in the future, the database will be transferred to an alternate home within the US Fish and Wildlife Service. Archived copies of the 20 mm database are saved weekly on the shared server in the Lodi Fish and Wildlife Office. Copies of the local and online databases are saved monthly on the shared server in the Lodi Fish and Wildlife Office. The shared server is backed up daily and once a month the backup is transferred to a fireproof safe on site.

Format

Data are recorded on data sheets in the field and upon return to the office are entered into a database. For Kodiak trawls, data are entered into an online portal, which is connected to a SQL server. Data are then accessed and retrieved through a Microsoft Access application (.accdb). For 20 mm data, entry and retrieval occur via Microsoft Access (.accdb). Data are made available on the Lodi Fish and Wildlife Office website in .csv and .pdf files, and upon request can be available in other file formats. When accessed via the website Bay-Delta Live, EDSM data can be downloaded as .csv, Excel (.xlsx), Word (.docx), or .pdf. When accessed via EDI, EDSM data can be downloaded as .csv.

Quality Assurance

Data are collected following the EDSM Standard Operating Procedure (SOP), which every employee is trained on prior to commencing work. A QA/QC program exists to ensure accurate identification of fish species in the field and accurate collection of environmental data. For early life stage fish identification, two or more experienced identifiers examine every fish until consensus is reached on species. Data is entered into online or Microsoft Access forms with customized error-checking and data validation checks. When a mismatch is found, the field data sheet is reviewed and errors are corrected in the main and/or the duplicate database. Additional data quality checks are performed by the data manager using custom queries, R code, and ArcGIS.

Access and Sharing

All EDSM data is available to the public.

Daily summary reports (including catch information for species of management concern) are available on the [Lodi Fish and Wildlife Office website](#). URL: <https://www.fws.gov/library/collections/lo-di-fwo-monitoring-data>.

Weekly, a report is posted to the website that summarizes preliminary Delta Smelt abundance analyses. The EDSM daily reports and other EDSM data can also be found on the online web portal [Bay Delta Live](http://www.baydeltalive.com/) (<http://www.baydeltalive.com/>) and [SacPas](https://www.cbr.washington.edu/sacramento/workgroups/delta_smelt.html) (https://www.cbr.washington.edu/sacramento/workgroups/delta_smelt.html).

The EDSM data set from December 2016 through November 2021 is posted (with full metadata) on the [Environmental Data Initiative Data Portal](https://portal.edirepository.org/nis/simpleSearch?defType=edismax&q=EDSM&fq=-scope:ecotrends&fq=-scope:lter landsat*&fl=id,packageid,title,author,organization,pubdate,coordinates&debug=false) (https://portal.edirepository.org/nis/simpleSearch?defType=edismax&q=EDSM&fq=-scope:ecotrends&fq=-scope:lter landsat*&fl=id,packageid,title,author,organization,pubdate,coordinates&debug=false).

Rights and Requirements

Data use rights and requirements for federal government datasets can be found on the [Learn about copyrighted government works](https://www.usa.gov/government-works). URL: <https://www.usa.gov/government-works>.