

# IEP Data Management Plan

## Basic Information

Year: 2020; PEN:043; Date Updated: 2019-05-01; Start Date: 2020-01-01

## Study Title

Estimation of Pelagic Fish Population Sizes

## Principal Investigator

*Individual(s) responsible for the project. Include name, agency, e-mail, & phone.*

Lara Mitchell, USFWS, lara\_mitchell@fws.gov, (209) 334-2968 x 345

## Point of Contact

*Individuals who data users should contact for access to the data or questions about the data. Include name, agency, e-mail, & phone number or write "same as above."*

Lara Mitchell (same as above); Leo Polansky, USFWS, leo\_polansky@fws.gov, (916) 930-5620; Vanessa Tobias, USFWS, vanessa\_tobias@fws.gov, (209) 334-2968 x 404.

## Data Description

*A very brief description of the information to be gathered; the nature and scale of the data that will be generated or collected. Include approximate size (in MB) of the resulting data set.*

Data on catches (counts) of different Delta Smelt life stages by date and location, along with sub-sample information on lengths of caught fish and estimates of volume sampled, come from CDFW's 20mm Survey (1995+, post-larvae), Summer Townet Survey (1990+, juveniles), Fall Midwater Trawl Survey (1990+, sub-adults), Spring Midwater Trawl Survey (1990's, 2000, and 2001, adults), and Spring Kodiak Trawl Survey (2002+, adults), as well as the Enhanced Delta Smelt Monitoring program (December 2016+). Environmental data collected by these sampling programs may also be used in the abundance estimation procedures. Flat files for fish catches and associated environmental variables are relatively small (~10 MB total). Additional compiled datasets used in this program element (including GIS files) are larger (~5 GB total).

## Related Data

*Optional. Existing datasets that you incorporate into analysis and reporting for this program element, existing data that are relevant to your study, or data that are collected simultaneously.*

Experiment data from a side-by-side gear comparison study (2012-2015) are used for estimating gear efficiency.

Bay-Delta GIS data (raster and shapefiles) and volume estimates, provided by USGS, have been used to calculate abundances. The GIS data have been used to calculate new Bay-Delta volumes for custom spatial and depth stratification schemes.

## Metadata

*A description of the metadata to be provided along with the generated data, including the metadata standards used. Provide the file name and information on how users can access the metadata (e.g., a link).*

Data documentation is available on the [Lodi FWO web page](#). Technical notes on different aspects of the abundance estimation processes are also available by request through the points of contact while this information is being incorporated into manuscripts.

## Storage and Backup

*A description of the short-term storage methods and backup procedures for the data, including the physical and electronic resources to be used for the short-term storage of the data.*

Copies of data files from external sources as well as EDSM data that are collected by FWS are stored on internal FWS servers. The online database for EDSM 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. The shared server is backed up daily and once a month the backup is transferred to a fire proof safe on site.

## Archiving and Preservation

*The procedures for long-term archiving and preservation of the data, including succession plans for the data should the expected archiving entity go out of existence.*

At the conclusion of this program element, records will be archived following guidance from the [Fish and Wildlife Service and the Department of Interior](#).

## Access and Sharing

*A description of how data will be shared. Include (1) access procedures, (2) embargo periods, (3) technical mechanisms for dissemination (e.g., website addresses, listserv information), (3) whether access will be open or granted only to specific user groups, and (4) a timeframe for data sharing and publishing.*

A link to the code to generate abundance estimates will be available through the [Lodi FWO webpage](#).

Most of the raw survey data are available through [CDFW's ftp site](#) (for example, see the TownetFallMidwaterTrawl/ and Delta Smelt/ directories). Some data files are available through the [Lodi FWO web page](#) or by request through the points of contact. EDSM data are available through the Lodi FWO web page and [Bay Delta Live](#). Some data are publicly available at [Lodi FWO webpage](#), [Bay Delta Live](#) and [Stockton CDFW webpage](#) and by request.

## **Format**

*Formats in which the data will be generated, maintained, and made available. Include BOTH general data type (e.g., spreadsheet, relational database) and file format (extension).*

Data from related projects and programs are recorded on data sheets in the field and upon return to the office are entered into an online data entry portal, which is connected to a SQL server. Data is then accessed and retrieved through a Microsoft Access application. Raw data are made available on the Lodi Fish and Wildlife Office website in Excel and PDF files, and upon request can be available in other file formats. When accessed via the website Bay Delta Live, DJFMP data can be downloaded as CSV, Excel, or PDF. Cleaned and processed [data files](#) used specifically for abundance estimation and the Delta Smelt Life Cycle Model are available in Excel's version of csv and the R statistical platform's "R" format.

## **Quality Assurance**

*Brief description of procedures for ensuring data quality. Provide links to Quality Assurance Project Plan and/or QA/QC Standard Operating Procedures.*

CDFW and USFWS personnel screen the data that we use for this program element. For details on QA/QC documentation for these surveys, please see the DMPs for the datasets listed in the data description section above.

## **Rights and Requirements**

*A link to or instructions to locate the agency's rights and requirements for data use.*

[Data use rights and requirements for federal government datasets](#) can be found online.