IEP Data Management Plan

Basic Information

Year: 2020; PEN:062; Date Updated: 2019-05-06; Start Date: 2020-01-01

Study Title

Quantitative Analysis of Stomach Contents and Body Weight for Pelagic Fishes

Principal Investigator

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

Christina Burdi, CDFW, Christina.Burdi@wildlife.ca.gov, 209-234-3664

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."

Same as above.

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 Collected; length and weight of fish; frequency of empty stomachs; number, size, type, and total weight of prey consumed. From this information, we can generate condition factors, stomach fullness indices, and prey selection indices. We link all of this information to the sampling location and environmental data provided by the project that collected each fish.

Three Access databases are currently maintained, one for formalin preserved fishes (POD initiated), one for flash frozen and ethanol preserved fishes (FLaSH initiated), and one for fishes as part of the Directed Outflow Project (DOP): POD Diet and Condition_27Mar2019_TLB.mdb -- 49.0 MB; FLaSH Diet Study Data_19Nov2018_TLB -- 26.7 MB; DOP Diet Study_22April2019_CEB --2.87 MB.

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.

Fish density and environmental data from surveys collecting fish samples: Townet Survey, Fall Midwater Trawl, 20-mm, Smelt Larva Survey, Bay Study, Spring Kodiak

Trawl. Surveys collect samples used for Diet and Condition as well as environmental data, and count and length data on other fishes.

Zooplankton density data from Townet Survey, Fall Midwater Trawl, 20-mm Survey, collected roughly simultaneous with fish, and Zooplankton Study are used to provide prey type and density information to compare with what was eaten by fishes.

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).

The POD Condition and Diet Study Access database data includes survey, survey date, station, tow, tow times, standard length (0.1 mm), fork length (0.1 mm), and total body weight (0.0001g).Diet data includes prey items removed from the entire digestive tract in larval fish or esophagus and stomach only in juvenile fish, identified to the lowest practical taxon, and counted. In some juvenile and adult fishes, the total prey mass was weighed wet (0.0001 g) and volume by visual estimates of proportion were conducted for prey weights. The file with detailed metadata is called: "POD Diet and Condition Study Project History01Dec2017_CEB.docx" and is located on the CDFW U Drive.

The FLaSH Diet Study and DOP Diet Study Access database data includes collection information (project, year, serial number, station) and contents of stomachs (prey type, count of prey types, and prey lengths) in addition to fish data (body weight, length, sex, stage). The file with detailed metadata is called: "FLaSH Diet Study Project History.doc" and can be found on the CDFW U Drive.

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.

There is electronic backup of the computer-entered Access data (gut content data) on an off-site, limited-share U-drive in the POD lab and POD Diet and Condition Study directories. The POD database can be found on the CDFW U Drive. The FLaSH database can also be found on the CDFW U Drive.. The DOP database is also online in the CDFW U Drive. Original data sheets are kept in the laboratory for several weeks and then in the project lead's cubicle at the CDFW office in Stockton. Identified stomach contents are stored in vials in 10% Formalin at the CDFW Stockton Archived Storage Room. Fish carcasses are stored either in ethanol or formalin in the DFW Stockton Chemical or Archived Storage Rooms.

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.

Copies of all data are stored electronically on the CDFW server as both excel files and as databases. The POD database can be found on the CDFW U Drive. The FLaSH database can be found on the CDFW U Drive. The DOP database can also be found on the CDFW U Drive. The hard copies of the data sheets are stored in the Environmental Scientist's cubicle or the laboratory. The protocol for storing samples are called "POD Storage and Processing Protocol.doc" and " POD Diet and Condition Study Project History01Dec2017_CEB.docx" and can be found in the CDFW U Drive. The protocol for storing samples for FLaSH is "FLaSH Diet Study Protocol 30Jan2015.docx" and is stored on the CDFW U Drive. These files also document any changes that have occurred to the projects over time.

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.

Data are not directly accessible by the public. We provide data by request only, in the form of an excel file (not the database). Typically, new data are available within 1 to 3 months after completion of lab processing and data entry, depending on the magnitude of the new data. In general, we do not provide raw data (data requests are usually for calculations performed on the data: stomach fullness, percent by weight diet composition, etc.). In addition, we require a description of the potential study before providing data, so that only the specific data needed are sent.

We also stipulate that CDFW and IEP are acknowledged in all materials produced from the data.

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 are recorded on paper data sheets and then entered into an Access database. All data sheets are stored in binders with recent data sheets residing in the lab and older data sheets in the lead investigator's cubicle. We have three databases ("POD Diet and Condition.mdb" " FLASH Diet Study Data.mdb" and "DOP Diet Study.mdb"). The FLaSH database can be found on the CDFW U Drive. The POD database can be found on the CDFW U Drive. The DOP database can also be found on the CDFW U Drive. Data are also kept in excel spreadsheets (.xls) and specific Access databases with queries (.mdb).

Quality Assurance

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

Every 10th fish processed by each staff member is quality checked by another qualified staff member. We conduct line-by-line checks of the newly entered database data and the written data sheets. Once in the database, the data are again checked by the Environmental Scientist. The QA/QC procedures for POD database “POD Diet and Condition Study Project History01Dec2017_CEB.docx”, “Subsampling Protocol.docx”, and “POD Condition and Diet Study Lab Protocol 1Aug2016.docx” (all located on the CDFW U Drive. The data corrections are kept in “PODDatabaseChangeRecord16May2017.xls” located on the CDFW U Drive. The data entry protocol is called “POD data entry protocol27Mar2019.docx”.The QA/QC procedures for the FLaSH database are the “FLaSH Diet Study Protocol 30Jan2015.docx” and “FLaSH Diet Study Project History.doc” and data corrections are kept in “FLaSH Data Correction Record 19Nov2018_TLB.xlsx” (all located on the CDFW U Drive.). The data entry protocol is called “FLaSH Data Entry Protocol 1April2016_TMG.docx” and located on the CDFW U Drive at “U:\LTM\POD_Lab\FLaSH Diet Study\In Progress\Data Entry Protocol”.

Rights and Requirements

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

In process. Will some day be located on the CDFW Science Institute webpage.