

IEP Data Management Plan

Project Element Number:

333

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Study Title

Expanded Acoustic Tagging, Analysis and Real-time Monitoring

Principal Investigator

Cyril Michel, UCSC, cyril.michel@noaa.gov, 831-420-3986

Point of Contact

Cyril Michel, UCSC, cyril.michel@noaa.gov, 831-420-3986

Arnold Ammann, NMFS, arnold.ammann@noaa.gov, 831-420-3968

Jeremy Notch, UCSC, jeremy.notch@noaa.gov, 831-420-3990

Data Description

Tagged Salmon/steelhead data: source, fish type, date tagged, tag type, fish size, fish weight, and release details (1MB). Receivers deployed data: location, start/stop time, receiver details and data coverage (1MB). Receiver detection data: files produced by receivers, 1 file for each deployment, date and time of detection, tag code, signal strength, frequency, and receiver status (temp, tilt, volts) (10's GB). Data sources will be combined, compiled and filtered to create a single file that contains fish identity, location and time of each detection with false positives removed (2GB). Sturgeon site visit data: site ID, visit date, start time, end time, GPS file and DIDSON files (10's KB). Sturgeon count data: DIDSON file, view ID, and count (10's KB). Didson files (10's GB). GPS files (10's KB).

Related Data

Chinook salmon/steelhead: Related data include: Flow, water temperature, and turbidity from appropriate CDEC water quality monitoring stations. Other related data include: Tidal currents, Old and Middle River (OMR) flows, daily exports and Delta Cross Channel (DCC) position. The NMFS RAFT model.

Metadata

All components:

Metadata documenting geospatial and environmental data will adhere to NOAA Administrative Order 212-15. This order encompasses ISO standard 19115 regarding geospatial data as well other specifications related to environmental data, environmental/geospatial data access and data stewardship practices.

Our data access portal was developed to adhere to NOAA Administrative Order 212-15, thus users will acquire xml based metadata as an explicit step of data access.

Storage and Backup

All receiver files, tables, DIDSON and GPS files will be stored on the NOAA NMFS Santa Cruz internal network servers (these servers are externally backed up per NOAA NMFS IT standards and practices).

Copies of Vemco receiver files and tables will be transferred and stored on servers at UC Davis. These will be appended to the existing multi-year database maintained by UCD.

Archiving and Preservation

The NOAA NMFS Santa Cruz servers are considered long-term storage.

Format

The fish tagged and receiver's deployed data will be tables in a MS Access relational database. Raw receiver files will be comma separated value (csv) text files. Processed files will go through several iterations using Matlab, then final file will be csv. This file will be imported into the MS Access relational database. The MS Access database will link to a SQL database.

Quality Assurance

Tagged fish data are entered directly into electronic forms by a designated data recorder. Values are inspected for possible data entry errors. Transmitter ID codes are recorded automatically by electronic device and saved to log file. These logs are compared to tagged fish table and field receivers, any incongruence is further investigated and errors corrected. Receiver deployment data are transferred from field datasheets to table in database, then compared to data files from receivers to confirm congruency.

Receiver detection data are run through several automated scrips to plot diagnostic data, add a unique Fish ID value, and Receiver location. Detections are filter to remove false positives. Movement in space/time plots for each fish are manually inspected to mark possible false detections. These are marked and removed from the detection dataset.

Access and Sharing

The [CalFish Track website](https://oceanview.pfeg.noaa.gov/CalFishTrack/index.html) will be periodically updated for fish tagging plans and actual tagging logs, receiver deployment logs, and detections and metrics from real time receivers. (URL: <https://oceanview.pfeg.noaa.gov/CalFishTrack/index.html>)

Raw data regarding tagging, detections, and receiver deployments can be accessed via the ERDDAP server. Detailed instructions can be found on the [CalFish Track CV Enhanced Acoustic Tagging Project](#) web page. URL:
https://oceanview.pfeg.noaa.gov/CalFishTrack/pageRealtime_download.html

Rights and Requirements

[NOAA Administrative Order 212-15](#) on the [NOAA Administrative Issuances](#) web page
http://www.corporateservices.noaa.gov/ames/administrative_orders/chapter_212/212-15.html

Section 3.01: Environmental data will be visible, accessible and independently understandable to users, except where limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements.