COORDINATED ASSESSMENTS PARTNERSHIP

Fish and Habitat Data Exchange

NEWSLETTER

June 2021

Progress Update
CAP Hatchery Indicators

The Coordinated Assessments Partnership (CAP) dove into regional sharing of hatchery fish high level indicators (HLI), starting with the Hatchery Coordinated Assessments Exchange (HCAX) Workshop 1. Over 50 participants representing 20 organizations provided input on the information to be considered for sharing through the CAP data system Results of this workshop were refined with the help of an ad hoc session of tribal, state and federal hatchery experts to set the stage for a phased approach for work to be accomplished during 2021-2023.

Fin clipped salmon Lyons Ferry Hatchery. Photo Credit AW (Tony) Grover.

The biologists' participating in the HCAX met in June (i.e., HCAX Biologist Work Group) to confirm this approach and to begin the challenging task of agreeing to common terms and definitions. The hatchery fish metrics and HLIs in-development consist of three groups:

- Hatchery Program Information— such as stock name, source facility, and spawning location.
- Juvenile Production Metrics— consisting of 7 metrics such as release numbers.
- Hatchery Stock Indicators—for example hatchery broodstock demographics and age at return.

To learn more, access HCAX meeting documents at Hatchery Data Sharing (HCAX). Next steps include engaging the data stewards participating in the HCAX (i.e., HCAX Data Manager Work Group) to develop data sharing rules and procedures.

StreamNet and PNAMP FWMG Collaboration

StreamNet and PNAMP are collaborating closer than ever to effectively engage biologists with the needed expertise to inform CAP data categories through the Fish Monitoring Work Group (FMWG).

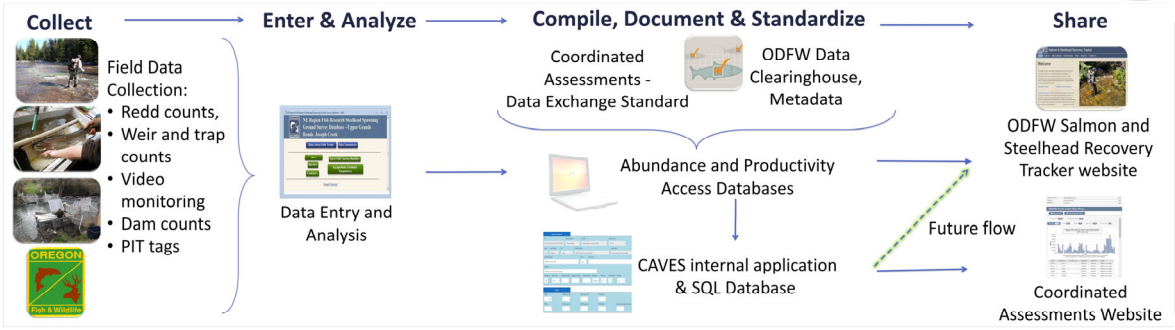
The list of StreamNet and CAP related tasks discussed during the February 2021 FMWG meeting attracted the interest of many and resulted in the several tasks getting underway in 2021 including the following:

- Improving understanding of data availability and HLIs on the CAP Fish HLI map query
- Clarifying the Juvenile Out-Migrant DES by better defining Smolt Equivalent
- Defining fish populations names and boundaries for non-ESA and resident focal fish species

Photo: WDFW

Photo: SFEG

The FMWG is tackling a variety of tasks to improve access to standardized data for informing regional decisions — learn more at the FMWG webpage. You can join in by signing up to participate in one of the Task Teams.



Spotlight: ODFW's CAVES

In 2019, a new project was initiated by Oregon Department of Fish and Wildlife (ODFW) staff who are funded by the StreamNet Program (referred to as " ODFW StreamNet staff"). This project was launched to develop an internal web application for storage and dissemination of Coordinated Assessments (CA) data tables described in the CA data exchange standard (DES) document for natural origin fish. The goals were to manage data in a centralized database and develop tools for data analysts to compile, manage, validate, and submit high-level indicators (HLIs) through the Coordinated Assessments Exchange (CAX). By summer of 2020, staff had completed the specifications and design, developed the web application, and conducted beta testing that passed final acceptance.

ODFW's new CA web application—called *Coordinated Assessments - Validation, Evaluation and Submission* (CAVES)--has enabled ODFW staff responsible for specific data to enter the information directly into ODFW's Fish Monitoring SQL server database and it also provides an automated process for validation and submission to the StreamNet API. The CAVES web application became fully operational for natural origin HLI tables in Fall 2020. The new functionality has made ODFW's internal submission process much more efficient, removed reliance on multiple MS Access database versions between regions, and allows the staff member responsible for data, to receive real-time data validation.

CAVES Functionality:

- All DES tables (i.e., NOSA) have their own user interface and data entry screens matching sections in the DES document (Defining a Unique Record, Indicators, Metrics, Age, Protocol/ Methods, Supporting Information, and Appendix A).
- Staff can query a record or group of records, download data for review, and compare local ODFW data with that at StreamNet to reconcile differences.
- Multiple records from a DES table can be submitted to StreamNet with a single-click.
- Reference (look-up) tables are updated and maintained (i.e., acceptable values).
- The database and user interface are adaptable for similar purposes and new CA or fish monitoring tables can be added easily.

ODFW StreamNet staff also maintain the ODFW Data Clearinghouse (DC). The DC provides a single searchable location to store and disseminate data, reports, publications, and other information the agency produces or needs access to. Staff are currently creating records in the DC to store CA related protocols and methods documentation and provide URLs to use as supporting information in DES tables.

ODFW StreamNet plans to add functionality to CAVES as the needs arise. For the future, staff also hope to implement the following projects related to data sharing and accessibility:

- Develop *Trend – Evaluation, Validation and Submission* (TEVaS) internal web application for fish monitoring data (trends) *(currently in development)*.
- Develop a new version of the ODFW Salmon and Steelhead Recovery Tracker external web application that is nearing the end of its technological life cycle.
- Add tables for Hatchery stock indicators and juvenile production metrics identified by the Hatchery CAX team to CAVES.

Coordinated Assessments Data Exchange (CAX)

6

High-level Indicators

206

Columbia River Basin (CRB) & Oregon (OR) Coast Populations with HLIs
(includes partial population estimates)

27

CRB & OR Coast Superpopulations with HLIs
(multiple population estimates)

208

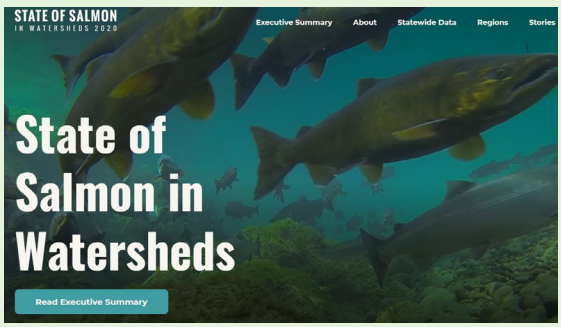
NOSA HLIs CRB & OR Coast
(incl. populations, partial, superpopulations)

https://cax.streamnet.org/

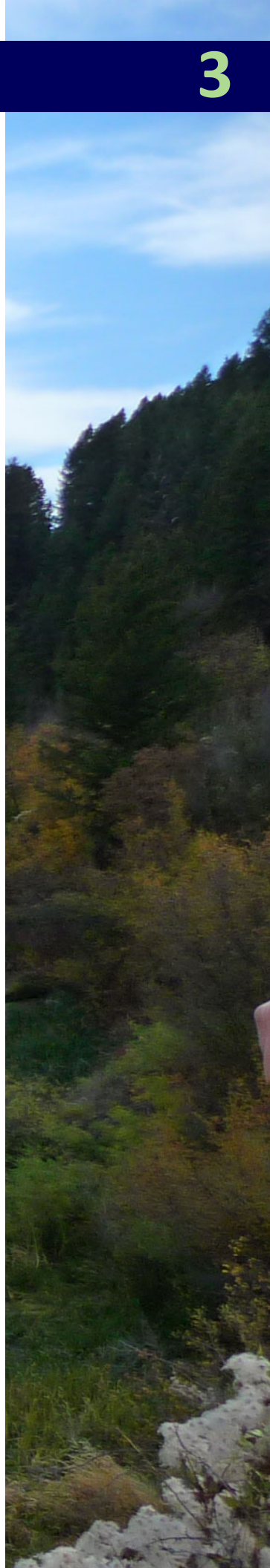
CAP Fish HLIs and Metadata Facilitate WDFW Reporting

Columbia River Basin salmon and steelhead data collected by Washington Department of Fish and Wildlife (WDFW) have been flowing into the Coordinated Assessments Data Exchange (CAX) since 2016. After abundance, age composition, and other data are collected and analyzed by WDFW biologists, data coordinators Michelle Groesbeck and Greg Lippert help format and enter these into CAX. CAX allows WDFW to utilize and share Coordinated Assessments Partnership's (CAP) standardized high level indicators (HLI) and metric data and metadata across the agency and with partners.

WDFW especially appreciates Coordinated Assessments' strong Data Exchange Standard (DES) and the inclusion of numerous metadata fields. Together these ensure that data mean the same thing and may be interpreted similarly across projects and data providers; while allowing data providers to store similar but subtly different information and preserving the ability of analysts to identify the ways in which information differs. A good example is the POPFIT column that indicates how the geographic extent of the HLI estimate corresponds to the definition of the population, and enables one to determine if the metrics being reported are measured at the same spatial scale as the designated population under ESA, or a different spatial scale, such as a subset index area of a designated population. This field alone equips analysts to rectify a pervasive issue plaguing past status assessments wherein index area abundances, representing a fraction of a designated populations' habitat, are inappropriately compared with recovery goals intended for the entire population.



As a result of benefits like this, CAX data are now being used for Washington State's State of Salmon assessments, NOAA SPS, and other reporting needs. WDFW has received ~$113K from EPA for the original CAX wild population indicator reporting deliverables. In the future, WDFW hopes to include Puget Sound and coastal Washington salmon and steelhead in CAX for regional reporting consistency.



Five-Year Work Plan

The current Five-Year Plan for the Coordinated Assessments Partnership (CAP) was adopted in 2019 and revised in 2020. Annual review and revisions by the StreamNet Executive Committee ensures that the plan aligns with regional priorities. A highlight of some of the 2021 priorities include:

1. Maintain, update, and automate existing data flow to CAX, refining the data exchange standards for existing salmon and steelhead high-level indicators (HLIs).
2. Coordinate with CRITFC tribes through the Inter-Tribal Monitoring Data Project.
3. Work with federal, state, and tribal natural resource managers through the PNAMP Fish Monitoring Work Group to refine the current CAP Data Exchange Standard, and, as directed by the Executive Committee, work on new HLI categories such as hatchery fish, white sturgeon, and carrying capacity.

CAP Participants

participants vary in their level and degree of involvement

pacific northwest aquatic monitoring partnership

Northwest Power and Conservation Council

StreamNet

More Resources

HCAX

https://www.pnamp.org/project/hatchery-data-sharing-hcax

CAX Data Query Mapper:

https://cax.streamnet.org/

CAP DES and Five-Year Plan:

https://www.streamnet.org

CAP Events and background:

https://www.pnamp.org/project/coordinated-assessments-for-salmon-and-steelhead

PNAMP Fish Monitoring Workgroup:

https://www.pnamp.org/project/fish-monitoring-work-group

For more information:

gs-pnamp_contact@usgs.gov

cap@streamnet.org

For Coordinated Assessments Data Exchange (CAX) technical assistance:

project@streamnet.org