COORDINATED ASSESSMENTS PARTNERSHIP

Fish and Habitat Data Exchange

NEWSLETTER

Summer 2024

Hatchery Coordinated Assessments Update

In May, PNAMP hosted the third and final Hatchery Coordinated Assessments (HCAX) workshop under the EPA Exchange Network grant funding. We had nearly 50 attendees participate in the virtual workshop, where we reviewed the progress of the project, what is left to complete to meet the grant requirements, and our plans for HCAX rolling into the general Coordinated Assessments Partnership (CAP).

We had great ideas and questions about the tabular query that folks are excited to start using to pull data out of the exchange. There are many ways to sort and view HCAX data. We will provide another opportunity to submit feedback in the coming months, so if this newsletter has been forwarded to you or you've found us online, please email gs-pnamp_contact@usgs.gov to get on our mailing list.

We reviewed suggested updates to the CAP Data Sharing and Data Use Agreements that guide data providers and data consumers. Our processes and understandings have evolved quite a bit since these agreements were first developed. Edits and comments on the DS/UA are due by the end of July 2024, please submit them as track changes to mwilliams@psmfc.org. A big change is the inclusion of dataset citation expectations developed from USGS standards but tailored specifically to CAP data attribution requirements within the Data Use Agreement and the fields required to replicate the dataset described.

Tables for Hatchery Stock, Hatchery Program, and Hatchery by Hatchery Stock have been populated to standardize naming conventions. All four High Level Indicator (HLI) tables have had data uploaded. There have been a few minor data validation rule changes during the initial implementation, and we will continue adapting as necessary to support data flow and description sufficient to support proper data use.

Cheers to the hard work of our signatory data providing partners the Colville Tribe, Washington Department of Fish and Wildlife, Oregon Department of Fish and Wildlife, and Idaho Department of Fish and Game.

BPA's Application of the CAP to support agency information needs and requirements

The Coordinated Assessment Program (CAP) helps Bonneville Power Administration (BPA) meet Federal commitments and regulatory obligations. Primarily the CAP supports BPA's Fish and Wildlife F&W Program's data policy. As a federal agency, BPA follows federal laws, regulations, and guidelines regarding data accessibility and accountability (see Jason Sweet's September 6, 2023, memorandum on FY 24 budgets). As such, BPA-funded contracts must comply with the data collection and reporting requirements included in funding agreements. Such data practices foster collaboration, advance equity, and ensure and maximize the quality, objectivity, utility, and the integrity of data generated by Bonneville-funded F&W projects.

Sharing data through StreamNet's Coordinated Assessment Partnership (CAP) data exchanges fulfills federal requirements for data accessibility and accountability. In addition, the CAP supports BPA by providing NOAA salmonid Viable Salmonid Population (VSP) data to support species status assessments. StreamNet's tools receives the highest rating by BPA F&W program staff for their open access and query tools with exchange standards and metadata documentation. Lastly, BPA staff and partners rely on StreamNet's fish distribution information to guide habitat enhancement and protection planning and prioritization. Recent CAP collaborations with the PNAMP Fish Monitoring Work Group have provided a clear foundation of exchange to support sharing of fish distribution and density data as a VSP indicator and many additional uses to guide habitat work across the Columbia River basin.

Russell Scranton and Jody Lando, BPA

Spotlight: Idaho Department of Fish and Game

Better Data Faster

Updates on IDFG's data managements projects and partnerships.

Hatchery Coordinated Assessments Data Exchange (HCAX)

IDFG and Pacific States Marine Fisheries Commission (PSMFC) hired a Data Management Specialist One (DMS1) to expand upon what we learned from the pilot HCAX effort in 2023. They will have a primary focus on HCAX metrics and indicators workflow development and delivery.

The primary data sources will be from materialized views of FINS data via an application programming interface (API) of trapping, spawning, and release data. That will be in addition to the Parental Based Tagging (PBT) estimates derived from those data and Lower Granite Dame (LGD) counts and DNA samples (also via an API with ACOE and IDFG research).

Image Source:: IDFG

Using materialized views of data from one authoritative data source in a dynamic manner (e.g. API) allows us to always have the most complete, and correct data set. Building our views and applications of the data upon those, allows us to extract, transform, and load (ETL) the most complete, correct data sets for StreamNet, Coordinated Assessments, and Hatchery Coordinated Assessments submittals. Better data faster.

Hatchery Programs, Stocks, and Trapping Pilot Project

IDFG and our collaborators compiled the hatchery production Programs, Facilities, Stocks, and Release Sites as our first foray into HCAX in 2023. It has been refined in 2024. The metric data and indicators will be assigned to these management and analysis units in addition to traditional CAP groups like MPG and Population. This will enable comparison between the natural origin and hatchery origin indicators.

We will focus on trapping and abundance first, and then move on to Spawning, Incubation and Rearing, and Release via the FINS API and IDFG analyses if available. We will coordinate the management of the hatchery programs, facilities, and stocks with our collaborators fish production and research personnel into the future.

Natural Origin Coordinated Assessments (NCAX?!?)

The Nez Perce Tribe (NPT) fisheries personnel collaborated with IDFG in order to refine the FINS API via the FINS steering committee and FINS personnel. This has allowed us to move ahead with the development of dynamic data streams for high level indicators (HLI) as opposed to downloading static data sets and programming off of those. We have shared what we have learned with fellow CAP collaborators like Shoshone Bannock Tribes (SBT) as they develop their own data streams. They have also helped us refine our processes.

Spawning Ground Survey Desktop and Mobile App (SGSd, SGSm)

The SBT, USFS, NPT, and IDFG have maintained standardized field training, data collection, and similar databases for over ten years. Each organization maintains their own data set, but the structures, collection, and analyses are all very similar. We have a desktop and a mobile app. This allows us to seamlessly share data, collaborate on analyses, and compare new methods to current methods (e.g. drone, helicopter, ground).

Currently, the SBT, USFS, and IDFG make use of mobile and desktop applications for spawning ground survey data collection. We had a core group develop and test the SGSm in 2023, refine that, and will move into production and deployment in 2024. This will result in better data faster.

Hatchery Coordinated Assessments Data Exchange (HCAX)

4

High-Level Indicators

454

Hatchery Stocks and species defined

33

Hatchery Programs defined

2746

HCAX HLI records transmitted to StreamNet

https://www.streamnet.org/

IDFG Spotlight continued

The anadromous and resident fishes (e.g. chinook, bull trout) redds, carcasses, samples, waypoints, images will be collected in the SGSm, refined with quality assurance and quality control (QAQC) procedures, compiled in collaborators' SQL databases, and then shared when ready by

Image Source:: Mari Williams

their stewards for management and research purposes.

Lower Granite Dam (LGD) Database

IDFG and collaborators have developed a SQL database that compiles adult fish counts and sampling (e.g. DNA, marks, tags) over LGD via an API with ACOE, FPC, and NOAAF for a decade or more.

Those count, tagging, and DNA sample data are used with the EASE model and PBT and GSI genetic analyses to estimate abundance by population and/or hatchery stock.

Having the metric data, estimates from modeling, metadata, and indicators compiled in SQL enables us to link to those authoritative sources in a dynamic way, and ETL what we need for SN, CA, and HCAX as well as other data requests.

Creel Survey Mobile App in Season One of Production/Development

Improving upon what we learned from our creel survey pilot projects in the past, IDFG personnel are using a refined version in 2024 chinook fisheries in the Clearwater and McCall fisheries. It accounts for multiple survey methods of a fishery in order to sample effort and catch and estimate harvest to manage a fishery.

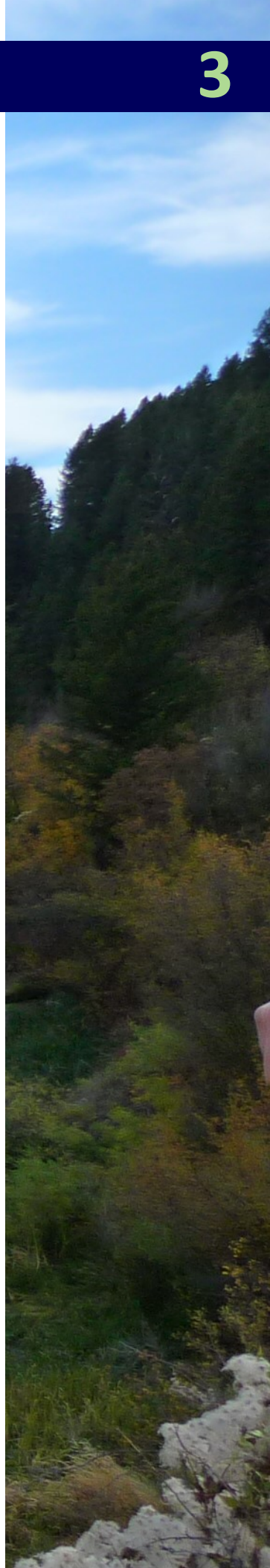
These data are used in views and models in a dynamic way, shared with fishery managers when they have been compiled and QAQC'd in order to make timely decisions with a high level of certainty.

Harvest data and estimates will be compiled in one complete, correct source in SQL, and used in estimates of harvest, escapement, and SN/CA/HCAX data. Better data faster.

Conservation Efforts Database for Yellowstone and Westslope Cutthroat Trout

IDFG StreamNet and CAP personnel are active members of collaborative teams to develop web apps for Westslope and Yellowstone Cutthroat Trout Range Wide Assessments (RWA) with states, tribes, and federal organizations by 2026. These apps will allow the compilation of presence/absence, abundance, genetic, and habitat data georeferenced to standardized hydrography, analysis, and management units. Source data are shared within the apps and consensus driven decisions based upon those data via web conferences.

The RWA dataset is the primary data source for Generalized Fish Distributions in Idaho, as well as its primary purpose of enabling the USFWS and federal, state, tribal, and other organizations to help manage fish populations. Better data faster.



CAP Dataset Citation

The CAP Data Sharing / Use Agreement update includes recommended fields for proper dataset citation. Dataset citations should include a dataset descriptor including HLI type, year or range of years, names of entities that provided or contributed to the data (ContactAgency, SubmitAgency, OtherDataSources), protocol and methods location, source of data (Coordinated Assessments Partnership Fish HLIs), and version (date of data download). The name and agency of the person who downloaded the dataset should be included where possible to assist with dataset replication issues.

StreamNet plans to develop auto-citation with the metadata within each record in CAP.

Planned Automated Citation

«POPULATIONNAME» <<HLI name>>. («YEARMIN»-«YEARMAX»). «ESTIMATETYPE» data from «PROTMETHNAME». «CONTACTAGENCY» «OTHERDATASOURCES». Protocol and Methods available at «PROTMETHURL». Accessed from Coordinated Assessments Partnership Fish HLIs at www.cax.streamnet.org vers «DATASETVERSION» by «YOUR NAME», «YOUR AGENCY».

CAP Participants

participants vary in their level and degree of involvement

Northwest Power and Conservation Council

StreamNet

More Resources

HCAX

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

CAP Fish HLIs Data

https://www.streamnet.org/home/data-maps/fish-hlis/

About CAP and Five-Year Plan for CAP

https://www.streamnet.org/cap/

CAP DES

https://www.streamnet.org/resources/exchange-tools/

CAP Events and Background

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

PNAMP Fish Monitoring Work Group

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

For more information on up-coming meetings or general information:

gs-pnamp_contact@usgs.gov

For CAP Fish HLIs data and technical assistance:

project@streamnet.org