

Morning Social in progress; meeting will begin at 9 AM



StreamNet

www.streamnet.org



pacific northwest aquatic
monitoring partnership

StreamNet Executive Committee & PNAMP Steering Committee Joint Session

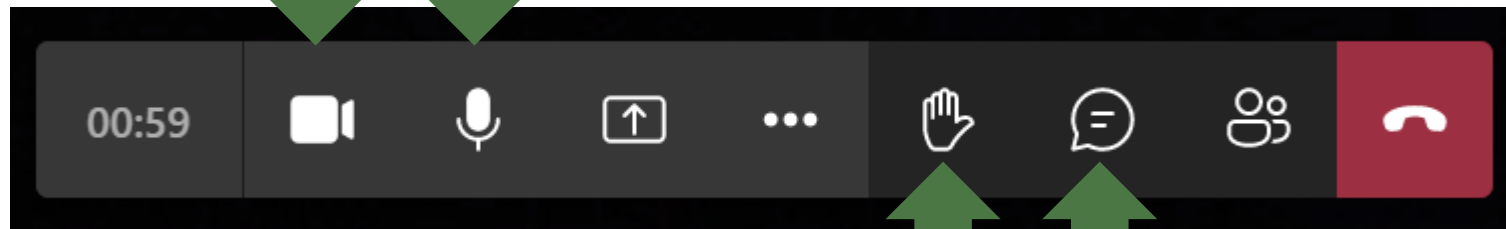
November 6-7, 2024

Microsoft Teams Tips

Please turn camera and mic off when not speaking.

Click to turn
video camera
off/on

Click to turn
microphone
off/on



Questions or comments:

Raise your hand or put it in the chat

Welcome!

In the interest of fostering an open and welcoming environment, PNAMP commits to make participation in our activities a harassment-free experience for everyone regardless of age, disability, ethnicity, gender identity and expression, level of experience, nationality, race, religion, or sexual identity and orientation.

**Be
Respectful**

**Be
Accountable**

**Communicate
Effectively**

**Value
Differences**

Collaborate

Agenda (Pacific)

9:00 Welcome and Introductions

PNAMP Project Short Updates:

- Next step of effectiveness monitoring
- 9:15
- Intensively Monitored Watersheds (IMW)
 - Toxics Monitoring Subgroup (TMS)
 - MonitoringResources.org

10:10 BREAK

10:30 Welcome - Joint Session of StreamNet Executive Committee and PNAMP Steering Committee

Updates on StreamNet and PNAMP Collaborations:

- Coordinated Assessments Partnership (CAP)
- 11:00
- Fish Monitoring Work Group (FMWG)
 - Salmon Data Mobilization

11:45 LUNCH

12:55 Return from lunch - Afternoon Session starts at 1pm

Founding Partners and Steering Committee

Bonneville Power Administration
California Department of Fish and Wildlife
Columbia Basin Fish & Wildlife Authority
Columbia River Inter-Tribal Fish Commission
Colville Confederated Tribes
Environmental Protection Agency
Idaho Department of Fish and Game
National Oceanic and Atmospheric Administration NWFSC
Northwest Indian Fisheries Commission
Northwest Power and Conservation Council
Oregon Watershed Enhancement Board
Pacific States Marine Fisheries Commission
U.S. Army Corps of Engineers
US Bureau of Land Management
US Bureau of Reclamation
US Forest Service
US Geological Survey
Washington Department of Fish & Wildlife
Washington Governor's Salmon Recovery Office
Washington Salmon Funding Recovery Board
Washington State Department of Ecology

Jim Geiselman
Scott Downie
Frank Young
Phil Roger
Keith Wolf
Dave Powers
Pete Hassemer
John Stein
Bruce Davies
Steve Waste
Greg Sieglitz
Bruce Schmidt
Paul Ocker
Al Doelker
Michael Newsom
Linda Ulmer
David Busch
Dan Rawding
Steve Leider
Bruce Crawford
Steve Butkus



Current Steering Committee

Bonneville Power Administration
California Department of Fish and Wildlife
Columbia River Inter-Tribal Fish Commission
Colville Confederated Tribes
Environmental Protection Agency
Idaho Department of Fish and Game
National Oceanic and Atmospheric Administration NWFSC
National Oceanic and Atmospheric Administration
Northwest Indian Fisheries Commission
Northwest Power and Conservation Council
Oregon Watershed Enhancement Board
Pacific States Marine Fisheries Commission
U.S. Army Corps of Engineers
US Bureau of Land Management
US Bureau of Reclamation
US Forest Service
US Geological Survey
Washington Department of Fish & Wildlife
Washington Governor's Salmon Recovery Office
Washington State Department of Ecology

Jody Lando/Russell Scranton
Vacant
Denise Kelsey/Sheryn Olson
John Arterburn
Lisa Kusnierz
Tim Copeland
Chris Jordan/Katie Barnas
Greg Sieglitz
Bruce Jones
Patty O'Toole
Courtney Shaff/Ken Fetcho
Nancy Leonard
Vacant
Mike Brown
Vacant
Christine Hirsch
Steve Waste
Phil Sandstrom
Greer Maier
Ed Krynak



pacific northwest aquatic
monitoring partnership

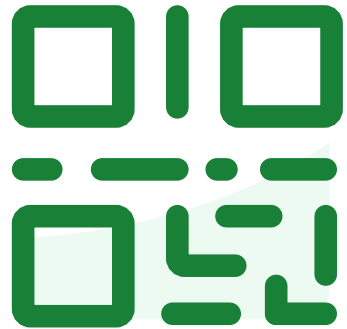


cheers
to
20
years





PNAMP Fun Facts



**Join at slido.com
#teamwork**

① Start presenting to display the joining instructions on this slide.

slido



How many total steering committee members have there been since PNAMP's start in 2004?

ⓘ Start presenting to display the poll results on this slide.

slido



Approximately how many people have participated in PNAMP activities over time?

ⓘ Start presenting to display the poll results on this slide.

slido



PNAMP Fun "Facts"! Which of the following statements are true?

i Start presenting to display the poll results on this slide.



PNAMP Project Short Updates

PNAMP: What, How?



Communities of Practice

Host meetings, workshops, work groups to share information about monitoring methods, design and results

Collaborative Projects

Develop strategies for more standardized and coordinated regional monitoring (methods, design, analysis) and improved access to data and information

Tools & Resources

Develop and support users of online tools to support consistent and detailed documentation for projects & datasets

Effectiveness Monitoring Work Group

Levels-of-Evidence Approaches

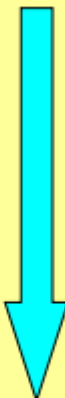





The levels-of-evidence approaches consist of at least three interdependent approach monitoring actions to determine biological benefit:

- (1) **Watershed-scale Monitoring**—This approach is similar to IMWs, but is implemented at a sub-population scale (a watershed scale smaller than the geographic area of the population). As with IMWs, this approach may include control-treatments in reach or habitat action types or single action types. Because watershed-scale monitoring does not directly measure the effects of actions at the population scale, status/trend monitoring should be used to assess possible changes at the scale of the population.
- (2) **Project-based Monitoring**—Project-based monitoring includes measuring population biological effects of individual actions at a reach or habitat unit scale. Because project-based monitoring does not directly measure the effects of actions on the population scale, complementary status/trend monitoring is needed to assess possible changes at the population scale. Effects of individual actions or classes of actions can be assessed through extrapolation of action influence and modeled connections from reach condition to population processes.
- (3) **Status/Trend Monitoring**—Status/trend monitoring of population productivity and habitat condition is a long-term effort (decades) that can assess effects of actions through correlation of productivity change to habitat condition and action replication. Status/trend monitoring provides higher certainty of inference if before-after data is collected at the population scale and physical and biological effects are measured at reach or habitat unit scale.

These approaches are not mutually exclusive, and as shown in Table 4, lie along a continuum of inferential certainty from relatively strong to relatively weak. IMWs provide more inferential certainty at the population scale than do levels-of-evidence approaches, to the extent that IMWs are design-based at the population scale. That is, inferences from IMWs are based on

Assessing Effectiveness

- Different monitoring approaches with important trade-offs
- Status & trends is part of assessing effectiveness

Approach	Where applied	How long?	Certainty	Opportunities
Intensively monitored watersheds (IMW)	Population & watershed	Short 	High 	Rare 
Sub-watershed monitoring	Subpopulation or sub-watershed			
Local project assessments	Site or stream reach			
Status & trend monitoring	Population & ESU	Long 	Low 	Many 

2007. From “IMWs in Context” by PNAMP Effectiveness Mon Work Group

Intensively Monitored Watersheds

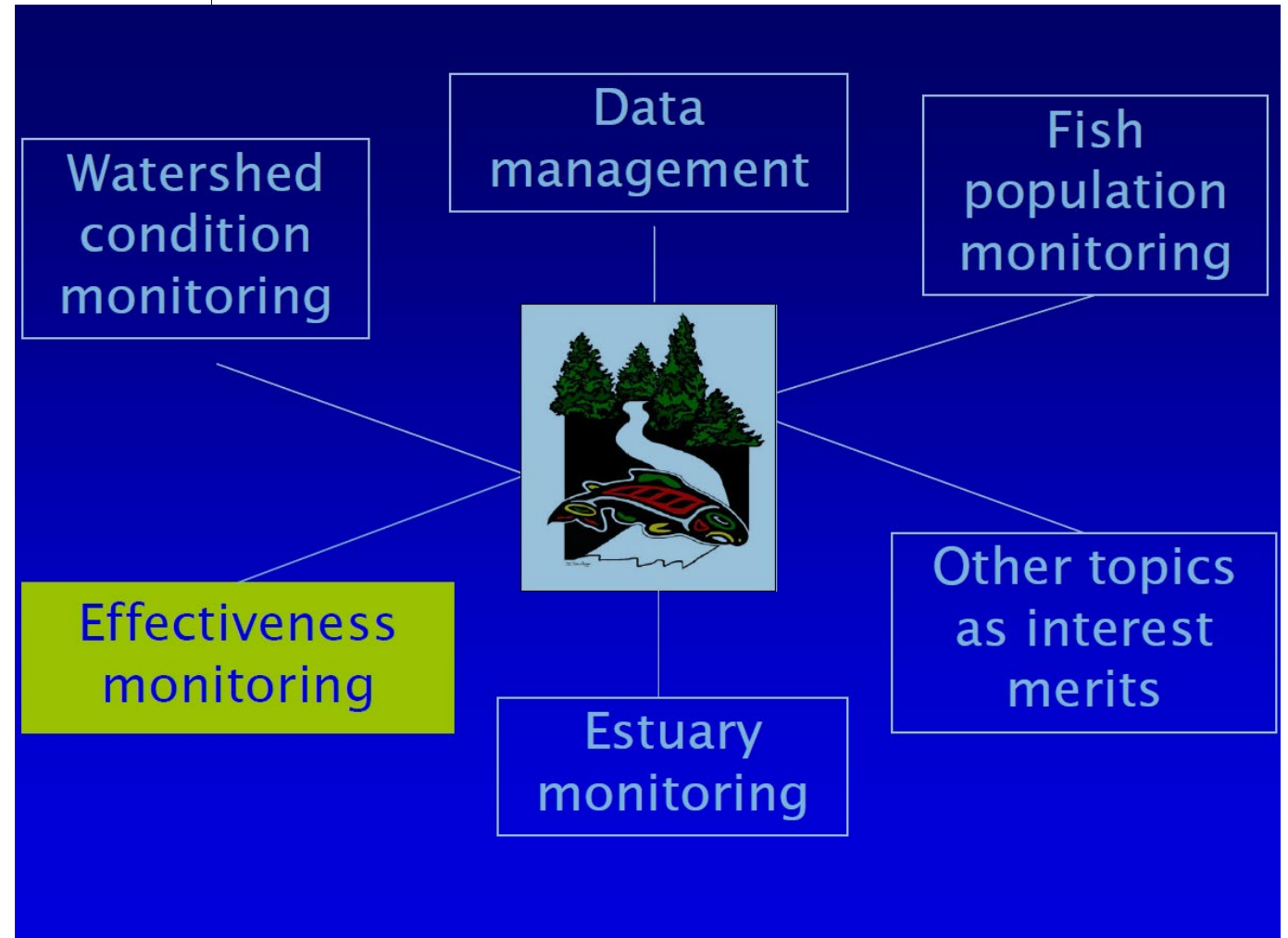
What's new

- Submitted abstracts for an IMW Lessons Learned session at the Salmon Recovery Conference (April 28-30, 2025 in Yakima, WA)
- Convened small group to plan workshop(s) to develop a vision for what's next for large-scale effectiveness monitoring

PNAMP's History with Effectiveness Monitoring

Today we have Projects:

- Habitat Data Sharing
- Data Mgmt & Mobilization
- Fish Population Monitoring
- Effectiveness Monitoring
 - IMW Forum
- Other Topics
 - Remote Sensing Forum
 - Monitoring Resources
 - Toxics Monitoring Subgroup
 - Emerging Tech Info Sessions



From 2006 PNAMP presentation by Steve Leider to NPCC

Discussion:

What's Next for Effectiveness Monitoring?

- What is important to PNAMP Partners?
- How can we use PNAMP processes to help Partners identify solutions?
 - Visioning Workshop(s)?
 - What else?
- How can we capitalize on past collaborations and our current Communities of Practice to address these needs?



Toxics Monitoring Subgroup (TMS)

Purpose: Provide a forum to exchange toxics monitoring information, discuss challenges, and coordinate monitoring activities.

Three virtual meetings and one workshop each year



Toxics Monitoring Subgroup

Collaborative tasks

- Identify data gaps and areas of synergy for sampling and data management
- Develop recommendations for common collection and analytical methods to enable cross-project data comparisons
- Discuss and agree on screening values/thresholds for specific constituents to be monitored



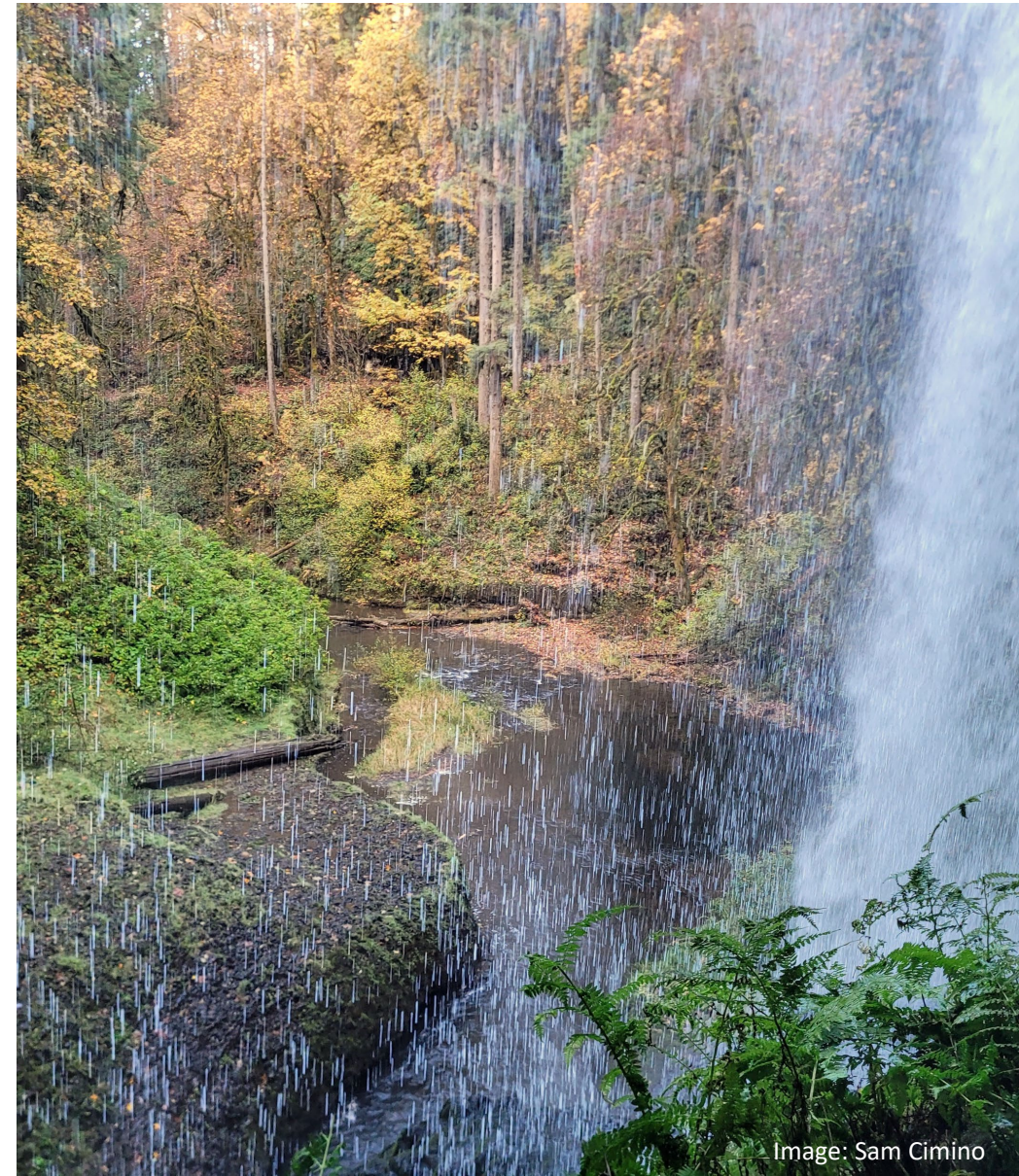
Monitoring Resources User Support

- Recent Accomplishments
 - Displayed nearly 4800 data collection events from the BLM AIM program on to our Explorer maps
 - Provided a Monitoring Resources Orientation to BPA CORs
 - Updated guidance documents
 - Provided 1-to-1 user support work sessions
 - Documented best practices methods from:
 - AFS – Methods for Fish Biology
 - AFS – Fisheries Techniques
- What's Happening Next
 - Continued support for PNAMP, StreamNet, and BPA working groups
 - Salmon Data Mobilization, CAP/HCA, FMWG, etc.
 - A survey to users to determine what support or training is most desired
 - Further documentation of best collection/analysis practices
 - Update any necessary guidance and training
 - Present a Monitoring Resources overview to the NPCC staff



Monitoring Resources Development

- Recent Accomplishments
 - Documenting Actual Data Collection Events after field work made easier
 - Provided necessary “tune-ups” to libraries and maps to ensure Monitoring Resources longevity
 - Simplified the process of collaborating on products within Monitoring Resources
 - Created a more user-friendly/easier to maintain discovery map
- What’s Happening Next
 - Continue to simplify the documentation process and access to the metadata
 - Libraries that highlight best practices
 - Templates that will kickstart the documentation process
 - Increase capacity to compare, harmonize, integrate via LLMs
 - Updates to discovery maps
 - Linking Monitoring Resources to StreamNet and CBFish
 - Create greater interoperability – reduce documentation redundancies
 - Background, objectives, focal species, etc.
 - MonitoringResources.org backend upgrades to stay on pace with CBFish



A close-up photograph of a person's hands holding several ripe apples. The person is wearing a red and white plaid shirt. The apples are a mix of red and yellow-green, suggesting they are fresh. The background is softly blurred, showing more of the plaid shirt and some indistinct shapes.

BREAK

Return at 10:30 for beginning of the
Joint Session of StreamNet Executive Committee and
PNAMP Steering Committee

Welcome!
Joint Session of
the StreamNet
Executive
Committee &
PNAMP
Steering
Committee





Agenda (Pacific)

- 10:30 Welcome - Joint Session of StreamNet Executive Committee and PNAMP Steering Committee
- 11:00 Updates on StreamNet and PNAMP Collaborations:
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CAP and HCAX



FY24 Accomplishments

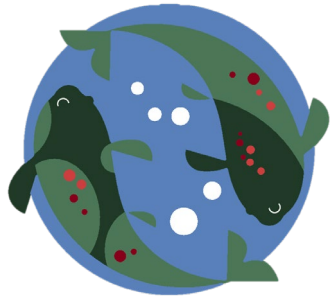
- Hatchery Indicator Project (HCAX)
 - Finished data exchange standard, data are flowing
- Implementing changes informed by 2023 CAP Workshop
 - Updates to StreamNet website for usability "Acronym translations"
 - Review fields in existing standards
 - Connecting systems such as CAX/HCAX, Monitoring Resources, other webservices
- Use PNAMP Fish Monitoring Work Group to support CAP needs
- Outreach: CAP Newsletter (2 issues); and Presentations (5):
 - "Teamwork Makes the Dreamwork: Managing Regional Fish and Habitat Data", 2024 AFS by Sam Cimino;
 - "Building Relationships and Data Sharing Technologies to Inform Regional Decisions", 2024 World Fisheries Congress by Mari Williams;
 - "Collaborative Data Exchange in the Pacific Northwest Through the Coordinated Assessments Partnership", Oregon AFS 2024 by Mari Williams;
 - "Providing Timely Data for Management Decisions through Collaborative Data Exchange in the Pacific Northwest", 2023 AFS national meeting by Mari Williams

CAP and HCAX



FY25 Planned Tasks

- Hatchery Indicator Project (HCAX)
 - Finish query
 - Receive data!
 - User Training Workshop at AFS WA/BC (March 2025) with Canada DFO: *“Tracking hatchery data from eggs to spawners across regions”*
- Implement changes informed by 2023 CAP Workshop
 - Update Terms and Definitions in Standards
 - Consider new standards emerging from FMWG
 - Modernize metadata publishing
 - Connecting systems such as CAX/HCAX, Monitoring Resources, other webservices
- Use PNAMP Fish Monitoring Work Group to support CAP needs
- Outreach: newsletter for CAP Outreach Forum and conduct annual survey of participants



Carrying Capacity Standards

Review of carrying capacity estimation methods, including: Habitat expansion, stock-recruit models, quantile regression, Individual based models, and food web modeling.

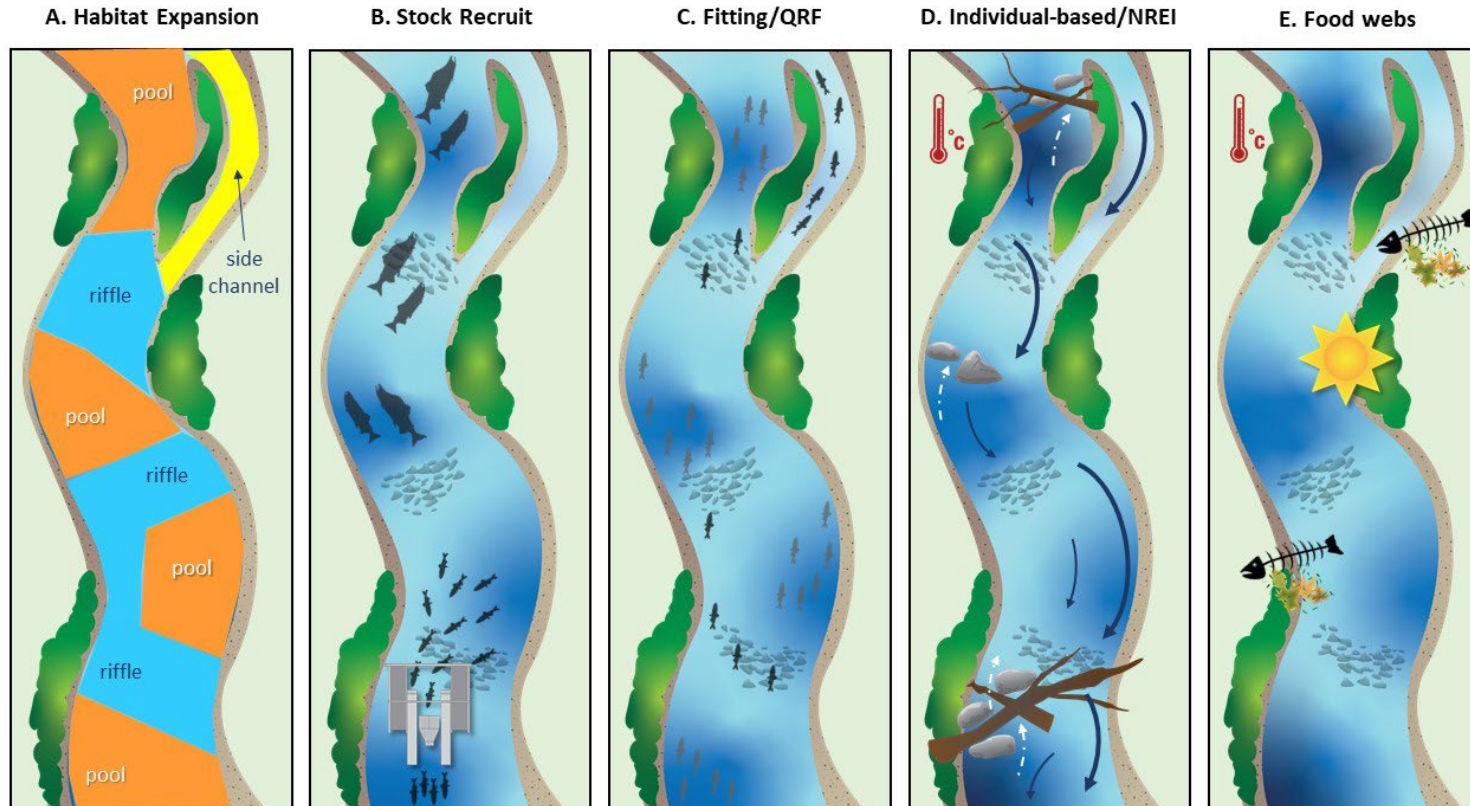
Authors: Morgan H. Bond, Timothy Copeland, Tim Beechie, Sean M. Naman, Joe R. Benjamin, J. Ryan Bellmore, Kevin E. See, Correigh Greene, Jennifer M. Bayer, Megan Dethloff, and Russell Scranton

Progress:

- Authors are editing sections to match tone and brevity
- Editing final discussion section, tables and figures

Next Steps:

- Figures and tables adapted to each authors' section
- Full draft of document for external review



Task Leads:

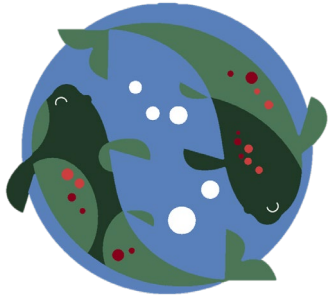
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Jen Bayer (USGS/PNAMP)
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Meg Dethloff (USGS/PNAMP)
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Rotary Screw Trap (RST) Data Collection

Purpose: A comprehensive resource for Columbia River Basin rotary screw trap specific information from multiple regional systems and sources.

Current Milestone: working to develop the dashboard as a tool for connecting facility data, location info, contact info for management entity, etc.

Ideas & Planned Dashboard Updates

- More advanced filtering: by year, etc.
- Obfuscate sensitive location info
 - Remove lat/long from data view
- Include trap purpose: LCM, tagging, etc.
- Work with FMWG & PNAMP to have biologists QC CRB data
 - Once dashboard is out of development stage

Explore: Interest and approach for entities to submit non-Columbia River Basin content.

Task Leads:

Kasey Bliesner (ODFW)
kasey.bliesner@odfw.oregon.gov

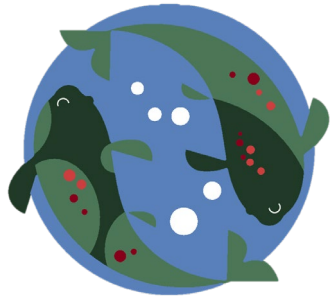
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Meg Dethloff (USGS/PNAMP)
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Mari Williams (PSMFC)
mwilliams@psmfc.org

Megan Griffiths (PSMFC)
mgriffiths@psmfc.org



Rotary Screw Trap (RST) Data Collection

Timeline/Process

January/February 2025: pick back up active development of dashboard with Neil at QW (pending staff resources)

Spring/Summer: Present dashboard to FMWG

Fall/Winter 2025: Goal is to have the content correct and dashboard UI bugs fixed

Non-CRB Data

- Who is interested in submitting data from outside of the Columbia River Basin?
- Ideas for implementation?
 - Standardize template for entities to populate (individual entity lift)
 - PSMFC staff upload completed standardized template (low lift on staff resources)
 - Other?

Task Leads:

Kasey Bliesner (ODFW)
kasey.bliesner@odfw.oregon.gov

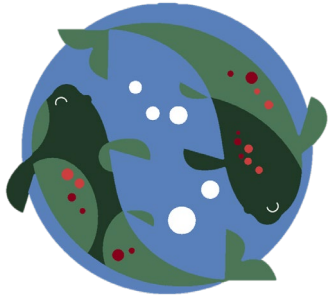
Russell Scranton (BPA)
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Nancy Leonard (PSMFC)
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Meg Dethloff (USGS/PNAMP)
mdethloff@usgs.gov

Mari Williams (PSMFC)
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Megan Griffiths (PSMFC)
mgriffiths@psmfc.org



PIT Tag Array Data and Related Data Analyses

2024 PTAGIS presentation poll and PNAMP FMWG – PIT task specific survey results

11. Based on feedback from participants at the 2024 PTAGIS workshop, these three needs were identified. Rank your priorities:

[More Details](#)



12. Rank **WEBINAR** topic interest from greatest (top) to least (bottom).

[More Details](#)



14. Rank **IN-PERSON WORKSHOP** topic interest from greatest (top) to least (bottom).

[More Details](#)

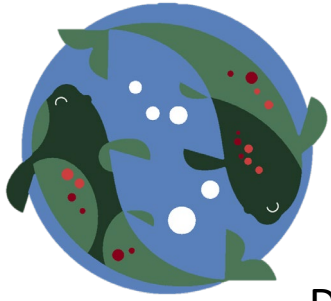


Task Leads:

Marika Dobos (IDFG)
marika.dobos@idfg.idaho.gov

Russell Scranton (BPA)
rwscranton@bpa.gov

Meg Dethloff (USGS/PNAMP)
mdethloff@usgs.gov



PIT Tag Array Data and Related Data Analyses

Data Management Tools and Training for PIT Tag Detection Data webinar series has been proposed for Feb/March 2025

Potential structure:

Level 1 Training for early career biologists, data managers, and refreshers

- a) Mastering advanced reports and data extraction in PTAGIS
- b) Mastering skills in Excel for managing PIT detection data
- c) Honing skills in R for graphics and managing detection data
- d) Honing skills in using PITcleanr

Level 2 Training in data tool repositories

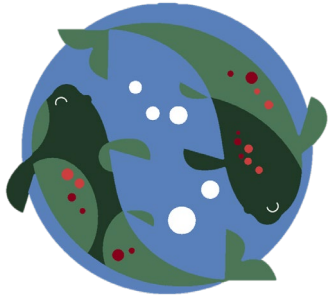
- a) GitWhat? Understanding utility and how to's of GitHub
- b) Tools to estimate stuff in DART – What does it all mean and is it useful for me?

Task Leads:

Marika Dobos (IDFG)
marika.dobos@idfg.idaho.gov

Russell Scranton (BPA)
rwscranton@bpa.gov

Meg Dethloff (USGS/PNAMP)
mdethloff@usgs.gov



Update Terms and Definitions Used in CAP Data Standards

Purpose:

- Review and update terms to ensure accuracy and consistency between DESs
 - Will increase confidence in CAP data
 - Will enable linking CAP controlled vocabularies to other datasets within PSMFC and externally
 - Helps ensure appropriate reuse and supports interoperability across datasets
- Very high priority identified at 2023 CAP Workshop

Task Leads:

Jen Bayer (USGS/PNAMP)
jbayer@usgs.gov

Mari Williams (PSMFC)
mwilliams@psmfc.org



Update Terms & Definitions in CAP Data Standards

Work to Date:

- extract terms and definitions from CAP and SN DESs, review and flag issues – first round by staff completed.
- provided update to StreamNet SC, shared current draft version, request input as to additional items to be flagged

What's Next:

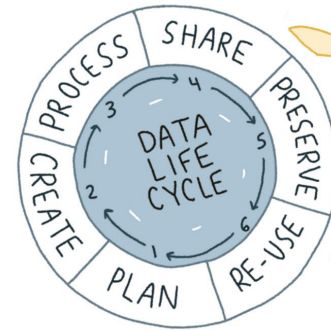
- **Winter:** collect input from SMEs using MS Forms (i.e. not in person meetings)
- **Spring:** share final draft
- **March:** include updated Terms & Definitions in workshop and/or talks at WA/BC AFS in Vancouver, BC

We're Not Alone in Striving to Make Data Available & Reusable



OPEN OCEAN TO OPEN SOURCE THE POWER OF DATA IN A RAPIDLY CHANGING WORLD

A CONVERSATION FACILITATED BY
TIM VAN DER STAP



WE ARE IN THE AGE OF DATA + INFORMATION

DATA MOBILIZATION



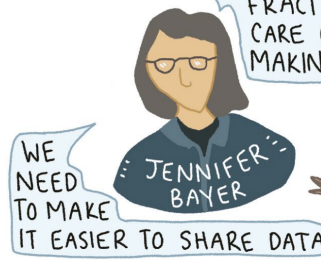
WHY MOBILIZE DATA?
HOW TO OVERCOME BARRIERS?

THE VALUE OF DATA COMES FROM ITS ABILITY TO BE ACCURATELY ANALYZED, INTERPRETED AND USED



A MORE INCLUSIVE APPROACH TO DATA CAN IMPROVE QUALITY

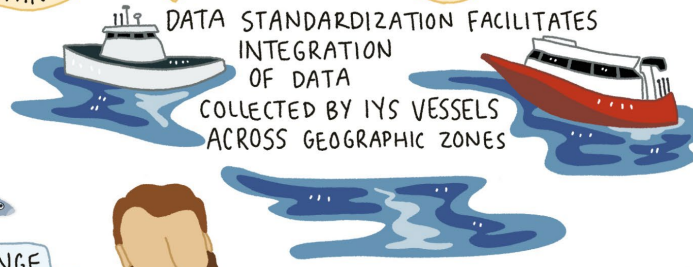
WE SPEND MILLIONS ACQUIRING DATA + SPEND A FRACTION TAKING CARE OF DATA AND MAKING IT AVAILABLE



WE NEED TO MAKE IT EASIER TO SHARE DATA

MOBILIZATION EFFICIENCY

PAN-PACIFIC RESEARCH EXPEDITION
INTERNATIONAL YEAR OF THE SALMON



DATA STANDARDIZATION FACILITATES INTEGRATION OF DATA COLLECTED BY IYS VESSELS ACROSS GEOGRAPHIC ZONES

DATA MOBILIZATION	
RISKS X	BENEFITS ✓
TIME + RESOURCE INTENSIVE	IMPROVE KNOWLEDGE
NEED TECHNICAL 'KNOW-HOW'	UNDERSTAND STRESSORS
POOR INTERPRETATION	INCREASE RECOGNITION
DATA CAN BE MISUSED	ENHANCE DISCOVERABILITY

INTEROPERABILITY = THE ABILITY TO EXCHANGE AND MAKE USE OF INFORMATION

THIS CAN BE DONE ITERATIVELY



SHARING DATA TODAY WILL HELP US TACKLE TOMORROW'S QUESTIONS



MOBILIZATION IS AN INVESTMENT + AN OPPORTUNITY



MOBILIZING YOUR DATA WILL AMPLIFY THE IMPACT OF YOUR DATA

WE NEED TO EDUCATE PEOPLE IN SCIENCE + TECH ABOUT DATA MOBILIZATION

Salmon Data Mobilization

FY24 Accomplishments

- 2024 AFS WA/BC Chapter symposium co-sponsored by Canada DFO: *Data Longevity Achieved! Reproducibility throughout the lifecycle and beyond*
- Created Research Data Alliance *Salmon Research and Monitoring Interest Group* to formalize ad hoc international working group
- Publication out soon: *Salmon Data Mobilization* Diack et al North Pacific Anadromous Fisheries Commission Bulletin
- Invited participants in emerging Salmon Climate Initiative (SCI; led by Long Live the Kings); bringing monitoring and data mobilization insight to SCI



Salmon Data Mobilization

FY25 Planned Tasks

- Host workshop 2025 AFS WA/BC *Fishing for Clarity: Data Exchange via Controlled Vocabularies and Ontologies in Salmon Science* collaboration with DFO Canada, NCEAS, StreamNet, PNAMP and other international partners
- Publish 'how to' paper: *How to mobilize salmon data: a practical guide for salmon data stewards and developers* Brett Johnson, Jennifer Bayer, Tomas Bird, Minh Doan, Lara Erikson, Nancy Leonard
- Launch Research Data Alliance (RDA) Interest Group working groups to address specific aspects such as data standards, interoperability, and capacity building.





Next steps and lunch details – Return at 12:55 pm

Welcome Back

Joint Session of StreamNet
Executive Committee and PNAMP
Steering Committee



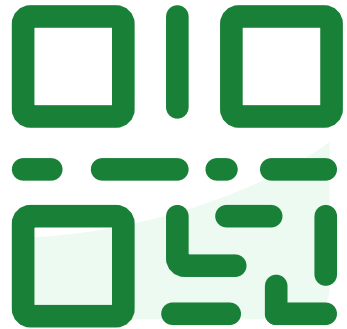
Current StreamNet and PNAMP Staff

StreamNet Staff (4 FTE)

- Nancy Leonard
- Mike Banach
- Mari Williams
- Greg Wilke
- Monica Diaz
- Megan Griffiths
- Kate Al-Sheikhly

PNAMP Staff (3 FTE)

- Jen Bayer
- Amy Puls
- Megan Dethloff
- Sam Cimino



**Join at slido.com
#teamwork**

① Start presenting to display the joining instructions on this slide.

slido



How many years of collective facilitation experience do current StreamNet and PNAMP staff have?

ⓘ Start presenting to display the poll results on this slide.

slido



How many pets do StreamNet and PNAMP staff currently have?

ⓘ Start presenting to display the poll results on this slide.

slido



Who would win in a dodge ball match?

ⓘ Start presenting to display the poll results on this slide.



Image: Microsoft Stock



Columbia River
Inter-Tribal
Fisheries
Commission
Presentation

Emerging Technologies Information Sessions

Collaborative Project Co-Sponsored by PNAMP and PSMFC

Planning committee:

- Kasey Bliesner (ODFW)
- Evan Brown (IDFG)
- Sam Cimino (PNAMP/USGS)
- Megan Dethloff (PNAMP/USGS)
- Lara Erikson (PSMFC)
- Denise Kelsey (CRITFC)
- Nancy Leonard (PSMFC)
- Allan Martin (PSMFC)
- Amy Puls (PNAMP/USGS),
- Mari Williams (PSMFC)



Image: Sam Cimino

Emerging Technologies Information Sessions



- Recent Accomplishments
 - Surveyed past participants and selected our session topics and series schedule
 - Modeling and Analysis, AI and ML, Data QA/QC, Genetics, and Remote Sensing
 - Every Wednesday January 8, 2025 – February 5, 2025; 9:00 AM – 11:00 AM (Pacific)
 - Identified and secured presenters
 - Created a program
 - Sent an event announcement via the PNAMP Newsletter and opened up registration
- What's Happening Next
 - Provide more outreach to the ETIS community
 - Host the webinar series
 - Post presentations to the PNAMP YouTube Channel

SciFish

FISHERMEN DRIVEN DATA COLLECTION

CITIZEN SCIENCE POWERED BY ACCSP



Julie DeFilippi Simpson
Deputy Director
Atlantic States Marine Fisheries
Commission (ACCSP)

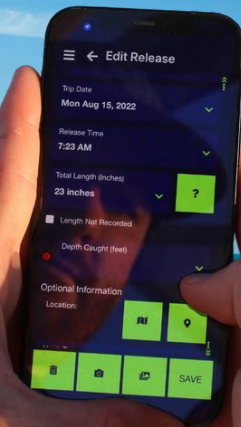


SciFish

*a customizable citizen science platform for the
US Atlantic coast*

Julie DeFilippi Simpson, ACCSP

StreamNet PNAMP Meeting
November 2024



ACCSP

Topics

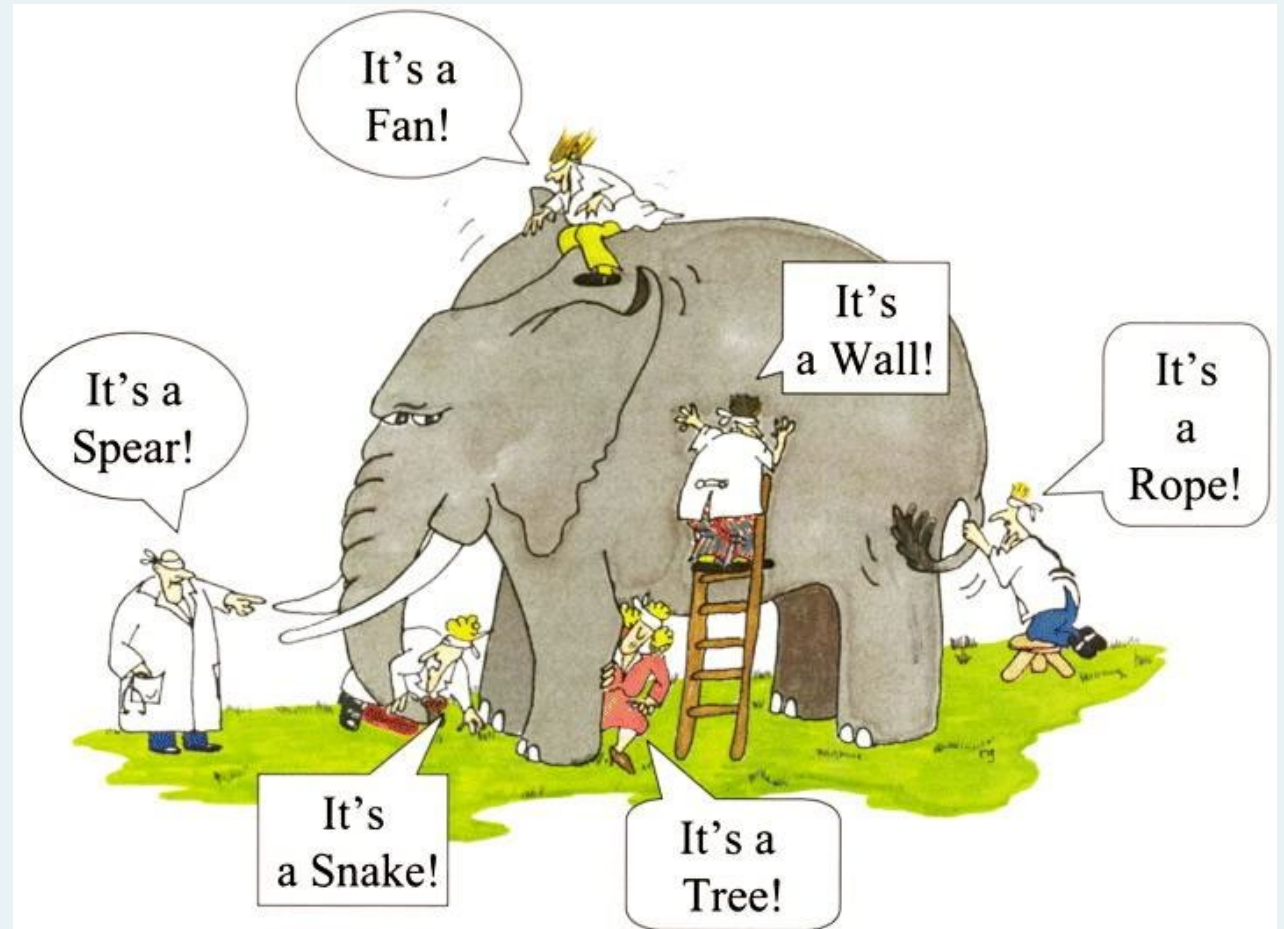


Citizen Science as a Tool



SciFish Platform

Citizen Science



Spectrum of Citizen Science

Increasing Volunteer Involvement 

CONTRIBUTORY

Data precision and accuracy high

Large scale monitoring

Increased content knowledge

Indications of change in attitudes

COLLABORATIVE

Local knowledge necessary

Enhanced stakeholder capacity, skills, knowledge of science

Develop sense of place and stewardship behaviors

CO-CREATED

High potential for enhancing stakeholder capacity, knowledge, sense of place

Intermediate expectation of data precision and accuracy

Can support social change

Growing interest in Citizen Science



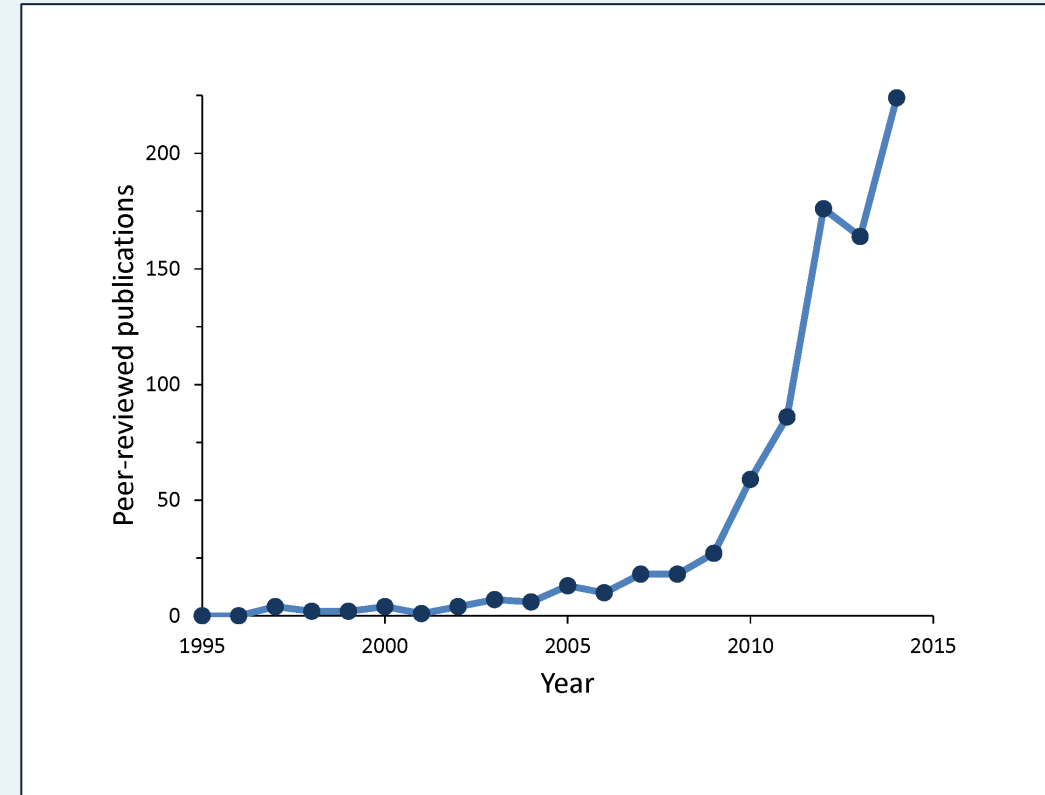
Increased growth in number of scientific publications that use or study citizen science



Crowdsourcing & Citizen Science Act of 2016

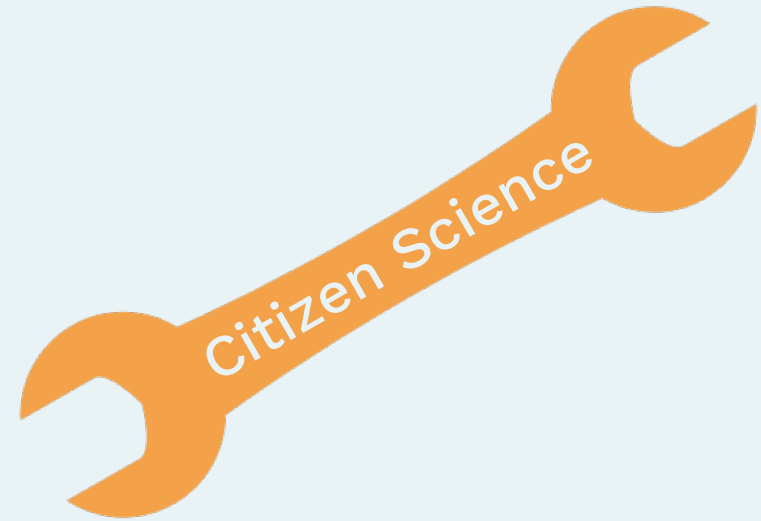


NOAA named citizen science a Science & Technology focus area in Jan 2020; released their CitSci strategy in Jan 2021 and CitSci action plan in 2023



McKinley et al. 2015

Citizen Science can be a powerful tool



Is it the right tool for your data needs & circumstances?

Is CitSci the Right Approach?

Should you consider a citizen science approach?

Clarity of aim/question	Importance of engagement	Resources available	Scale of sampling	Complexity of protocol	Motivation of participants
Clear aim/question	Engagement is important	Plenty of resources	Large-scale sampling	Simple protocol	Good reasons to participate
Vague aim/question	No engagement or only one-way communication	No resources	Small-scale sampling	Complex protocol	Reasons to participate are not clear

Pocock, M.J.O et al., 2014



CITIZEN SCIENCE POWERED BY ACCSP



SciFish Platform

SciFish Introduction



Growing interest in using citizen science, which is a powerful tool to better understand marine fish populations



Vision: To create a citizen science mobile application that encourages and supports the capture and sharing of data on Atlantic coast fisheries.



Develop a citizen science mobile application and menu-driven project builder interface to eliminate need for stand-alone apps and standardize data collection



SciFish Development Drivers



Reduce costs
needed to develop
individual
applications



Reduce time to
create applications
from ground up



Increase
consistency in data
fields and structure

SciFish Approach



- Focus on data collection for marine and/or diadromous fisheries along the Atlantic coast
- Fill data gaps or data deficiencies and address identified research needs
- Use intentional design and clearly articulate how collected data will be used in management and/or stock assessments
- Standardize collection of citizen science data from Atlantic coast fisheries
- Provide a single platform for multiple data collection projects



SciFish Administration & Oversight



Administration
through ACCSP



Primary oversight by:
SciFish Advisory Panel
(SAP)

SciFish Advisory Panel

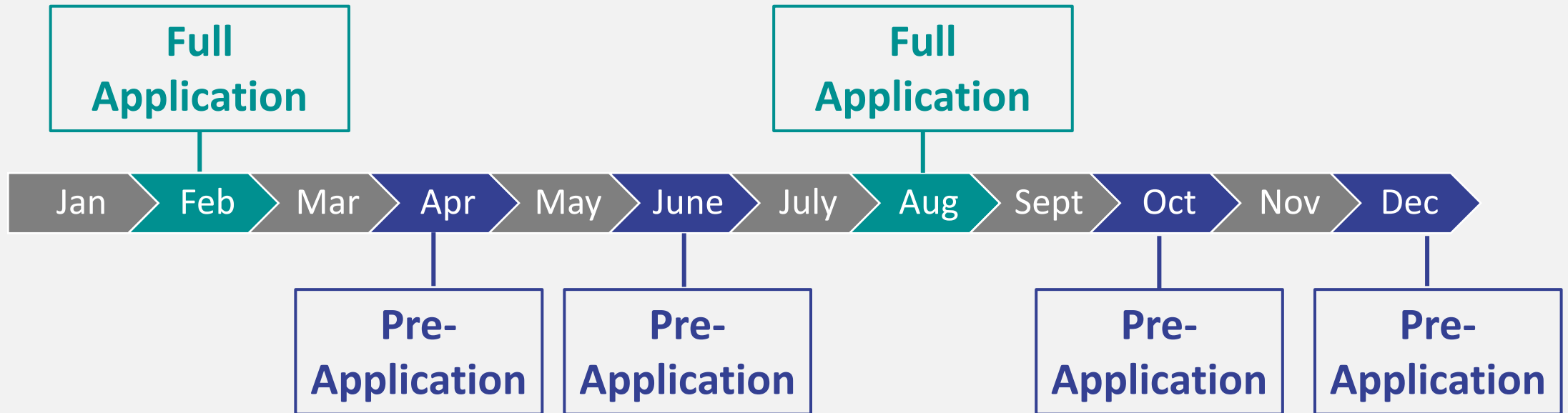
- Julia Byrd (SAFMC)
- Julie DeFilippi Simpson (ACCSP)
- Angela Giuliano (MD DNR)
- Fran Karp (ACCSP Advisor RI)
- Kathy Knowlton (GA DNR)
- Dee Lupton (ACCSP Advisor NC)
- George Maynard (NOAA Fisheries)
- Laura Oremland (NOAA Fisheries)
- Brandi Salmon (NC DMF)
- David Sikorski (ACCSP Advisor MD)





SciFish Project Development

Multi-step Application Process





SciFish Full Application

Other Topics: Collaborators, Goals, Methods, Impact on Assessment/Management

DATA USE

DATA
MANAGEMENT
PLAN

VOLUNTEER
TRAINING PLAN

COMMUNICATION
PLAN

BUDGET

RISK



SciFish Uses

SciFish Projects



SciFish API

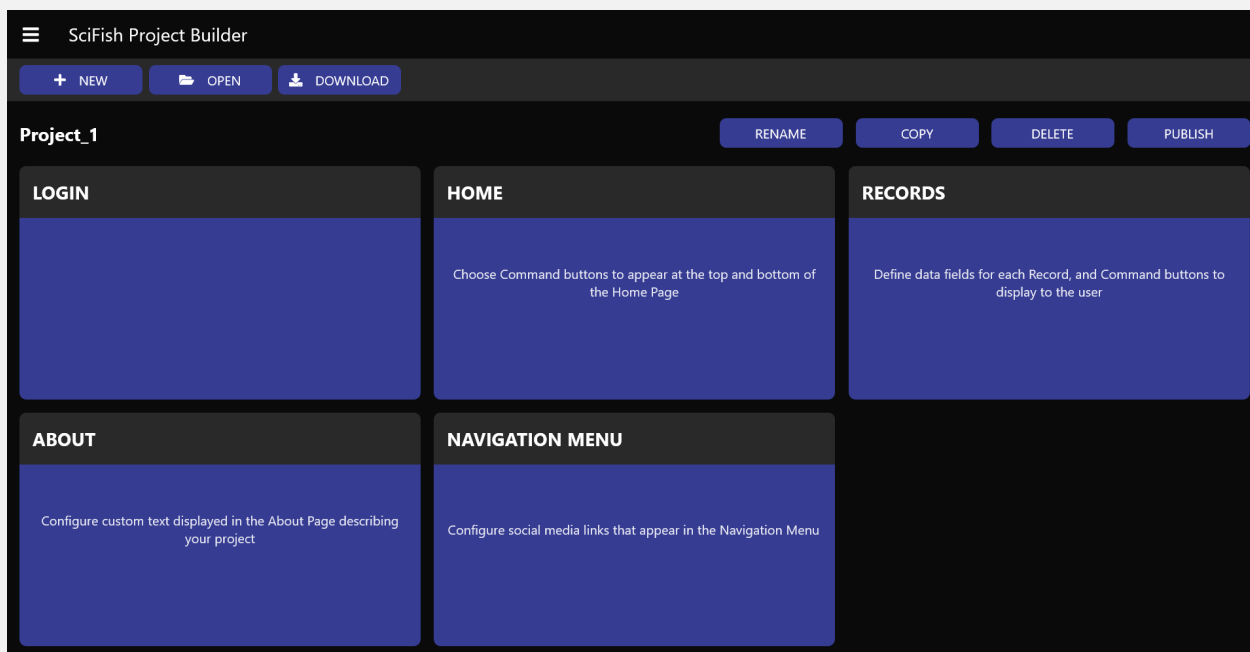




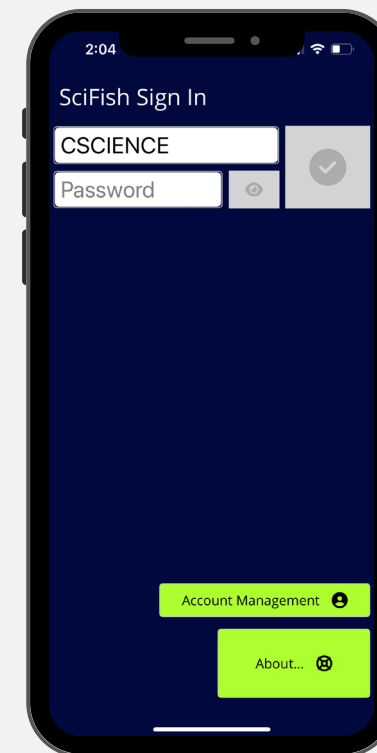
SciFish Platform



SciFish Project Builder



SciFish Mobile App



[ACCSP SciFish Builder.mp4](#)



Building a SciFish Project

The image displays the SciFish Project Builder interface, which is used to create and manage a project. The interface is divided into several sections:

- LOGIN**: Configure login functionality.
- HOME**: Choose Command buttons to appear at the top and bottom of the Home Page.
- RECORDS**: Define data fields for each Record, and Command buttons to display to the user.
- ABOUT**: Configure custom text displayed in the About Page describing your project.
- NAVIGATION MENU**: Configure social media links that appear in the Navigation Menu.
- BRANDING**: Configure colors to give your project a unique look.

The interface also includes a top navigation bar with options for **NEW**, **OPEN**, and **DOWNLOAD**. The current project is named **It's A Fluke**, and there are buttons for **RENAME**, **COPY**, **DELETE**, and **PUBLISH**.

On the right, a mobile preview of the **SAFMC Release** app is shown. The app interface includes a **START ENTRY** section with four icons, **Release Details** for a **Red Grouper** (25 inches, 8/14/2023 1:54 PM), and an **Upload Entries** button.



Building a SciFish Project

The image displays the SciFish Project Builder interface, split into two main sections: a desktop configuration window and a mobile app preview.

Desktop Window: SciFish Project - Edit Record View

- Configure Attribute Dialog:**
 - Species** (Value Type: STRING)
 - Hide this attribute
 - Is Required
 - If Required, Allow No Response
 - Default to previous response
 - Help Message: [Text input field]
 - Help Image: [SELECT... button]
 - Hide Help Instructions: [Do not show this anymore text input field]
 - Buttons: [Select All], [Unselect All], [Search...], [Up Arrow], [Down Arrow]
 - Species List:
 - (172398) ALBACORES
 - (161706) ALEWIFE
 - (166156) ALFONSINO
 - (168689) AMBERJACK, GREATER
 - (168690) AMBERJACK, LESSER
 - (168688) AMBERJACKS
 - (553173) ANCHOVIES
 - (161839) ANCHOVY, BAY
 - (161842) ANCHOVY, DUSKY
 - Buttons: [CANCEL], [OK]

Mobile App Preview: Edit Release

- Time: 9:28, Battery: 100%
- Fields:
 - Species: [Dropdown menu]
 - Trip Type: [Dropdown menu]
 - State (Port of Return): South Carolina [Dropdown menu]
 - Trip Date: [Dropdown menu]
 - Release Time: [Dropdown menu]
 - Total Length (Inches): [Dropdown menu] [?] [More options]
- Bottom Bar: [Delete], [Photo], [Add Photo], [SAVE]



Building a SciFish Project

The screenshot displays the SciFish Project Builder interface. The main workspace is titled "It's A Fluke" and contains several configuration panels:

- LOGIN**: A panel for configuring the login page.
- HOME**: A panel with the instruction "Choose Command buttons to appear at the top and bottom of the Home Page".
- RECORDS**: A panel with the instruction "Define data fields for each Record, and Command buttons to display to the user".
- ABOUT**: A panel with the instruction "Configure custom text displayed in the About Page describing your project".
- NAVIGATION MENU**: A panel with the instruction "Configure social media links that appear in the Navigation Menu".
- BRANDING**: A panel with the instruction "Configure colors to give your project a unique look". This panel is highlighted with a red border.

At the top of the interface, there are buttons for "+ NEW", "OPEN", and "DOWNLOAD". Below the project name, there are buttons for "RENAME", "COPY", "DELETE", and "PUBLISH".

On the right side, a mobile preview shows the "SAFMC Release" app. The app interface includes a "START ENTRY" section with four icons, a "Release Details" section for "Red Grouper" (25 inches, 8/14/2023 1:54 PM), and an "Upload Entries" button at the bottom.



Building a SciFish Project

The image displays the SciFish Project Builder interface, which is used for configuring the branding and layout of a mobile application. The interface is divided into three main sections:

- Left Panel (Navigation):** A blue sidebar with a menu icon and the following options: Download Project, Switch Projects..., Preview..., Contact Us, and About.
- Center Panel (Design Canvas):** A pink background showing a wireframe of a mobile app page. The page title is "Page Title". The wireframe includes a "SciFish" header, a "COMMAND TEXT" button, "HEADER TEXT", "RELEASE DETAILS", a "Species Name" field with a "Length" label, and a "Species" field with the text "Grouper". A mouse cursor is pointing at the "Grouper" text.
- Right Panel (Color Palette):** A list of color swatches with their corresponding hex codes:
 - Background: #FFD80074
 - On Background: #FFFFFF
 - Primary: #363C92
 - Primary Dark: #FFE6A4D6
 - Primary Light: #363C92
 - On Primary: #FFFFFF
 - Secondary: #363C92
 - Secondary Dark: #151144
 - Secondary Light: #613692
 - On Secondary: #FFFFFF
 - Menu Background: #FF061DFB
 - On Menu: #FFFFFF
 - Error: #FF0000
 - On Error: #FFFFFF
- Right Panel (Mobile App Preview):** A vertical preview of the mobile app interface. The top status bar shows the time 9:43 and 100% battery. The app title is "SAFMC Release". Below the title is a "START ENTRY" section with four icons (camera, document, keyboard, and a circular icon). The "Release Details" section shows "Red Grouper" with "25 inches" and "8/14/2023 1:54 PM". At the bottom is a large yellow "Upload Entries" button.



Building a SciFish Project

The image displays the SciFish Project Builder interface, which is used to create and manage mobile applications. The interface is divided into two main sections: a configuration editor on the left and a mobile app preview on the right.

Configuration Editor (Left Panel):

- Header:** "SciFish Project Builder" with a hamburger menu icon.
- Actions:** "+ NEW", "OPEN", and "DOWNLOAD" buttons.
- Project Name:** "It's A Fluke" with a "RENAME" button.
- Actions:** "COPY", "DELETE", and "PUBLISH" buttons. The "PUBLISH" button is highlighted with a red border.
- Configuration Grid:**
 - LOGIN:** A large blue area for configuring the login screen.
 - HOME:** A large blue area with the text: "Choose Command buttons to appear at the top and bottom of the Home Page".
 - RECORDS:** A large blue area with the text: "Define data fields for each Record, and Command buttons to display to the user".
 - ABOUT:** A large blue area with the text: "Configure custom text displayed in the About Page describing your project".
 - NAVIGATION MENU:** A large blue area with the text: "Configure social media links that appear in the Navigation Menu".
 - BRANDING:** A large blue area with the text: "Configure colors to give your project a unique look".

Mobile App Preview (Right Panel):

- Header:** "SAFMC Release" with a hamburger menu icon.
- START ENTRY:** A section with four green buttons containing icons for camera, location, message, and refresh.
- Release Details:** A section displaying "Red Grouper" with "25 inches" and "8/14/2023 1:54 PM".
- Upload Entries:** A large green button at the bottom.
- Bottom Bar:** A white bar with three icons: a hamburger menu, a circle, and a back arrow.



Building a SciFish Project

The screenshot displays the SciFish Project Builder interface. The main window is titled "SciFish Project Builder" and shows a project named "It's A Fluke". A "Publish Project" dialog box is open, allowing the user to select a publish channel. The "Developer" channel is selected, and a red box highlights the number "751001" in the "Tag 1" field. The dialog box also includes instructions for testing the project in the SciFish mobile application and a "PUBLISH" button. To the right, a mobile app preview is shown, displaying the "SAFMC Release" screen with a "START ENTRY" button and a "Red Grouper" release entry. The bottom of the screen shows the Windows taskbar with the date and time: 10:25 PM, 8/15/2023.

SciFish Project Builder EVAL

SciFish Project Builder

+ NEW

It's A Fluke

LOGIN

ABOUT

Configure custom test descriptions

Project a unique look

PUBLISH

Publish Project

Project Name **It's A Fluke**

Publish Channel

- Developer
Use this channel to create a release for you to test with.
- Alpha
Use this channel to create a very early release for test users.
- Beta
Use this channel to create a near-final release for a wider audience of testers.
- SciFish General Availability
Your project will be published to be downloaded by all registered users of SciFish.

To test this project in the SciFish mobile application, users in this channel should:

- 1) Select "Preview..." from the main menu
- 2) When prompted, enter the following number to download this project:

751001

Tag 1

Tag 2

Use these fields to provide unique identifiers for this release, such as a version number or feature branch

CANCEL OK

10:26

SAFMC Release

START ENTRY

Release Details

Red Grouper

25 inches 8/14/2023 1:54 PM

Upload Entries

69°F Mostly cloudy

10:25 PM 8/15/2023



Building a SciFish Project

The image displays the SciFish Project Builder interface. The main window is titled "SciFish Project Builder EVAL" and shows a project named "It's A Fluke". The interface includes a top navigation bar with "NEW", "OPEN", and "DOWNLOAD" buttons. Below this, there are buttons for "RENAME", "COPY", "DELETE", and "PUBLISH". The main area is divided into six panels for configuration:

- LOGIN**: Configure login functionality.
- HOME**: Choose Command buttons to appear at the top and bottom of the Home Page.
- RECORDS**: Define data fields for each Record, and Command buttons to display to the user.
- ABOUT**: Configure custom text displayed in the About Page describing your project.
- NAVIGATION MENU**: Configure social media links that appear in the Navigation Menu.
- BRANDING**: Configure colors to give your project a unique look.

On the right side, a mobile app preview is shown for "SAFMC Release". The app interface includes a "START ENTRY" section with icons for camera, chat, messages, and a clock. A red box highlights a dialog box titled "Access Preview Project" with the following text: "Enter the code provided to you by the Project developer to gain access to a preview release:". Below the text is a white input field and two buttons: "Cancel" and "OK". At the bottom of the app preview is an "Upload Entries" button.



Building a SciFish Project

The image displays the SciFish Project Builder interface, which is used to create and manage mobile applications. The main window is titled "SciFish Project Builder EVAL" and shows a dashboard for a project named "It's A Fluke".

Dashboard Overview:

- Project Name:** It's A Fluke
- Actions:** + NEW, OPEN, DOWNLOAD, RENAME, COPY, DELETE, PUBLISH
- Sections:**
 - LOGIN:** Configure login functionality.
 - HOME:** Choose Command buttons to appear at the top and bottom of the Home Page.
 - RECORDS:** Define data fields for each Record, and Command buttons to display to the user.
 - ABOUT:** Configure custom text displayed in the About Page describing your project.
 - NAVIGATION MENU:** Configure social media links that appear in the Navigation Menu.
 - BRANDING:** Configure colors to give your project a unique look.

Mobile App Preview:

The preview shows a mobile application interface for "It's A Fluke" with a pink background. It includes a menu icon, the project name, and the following sections:

- Add A Catch:** Contains three buttons: a camera icon, a document icon, and an "Add Catch" button.
- Catch Details:** A section for displaying catch information.
- Upload Your Fluke:** A button at the bottom of the screen.



SciFish: Key Takeaways



Focus on supporting citizen science projects



Standardize collection of citizen science data on the Atlantic



Intentionally designed projects that fill existing data gaps



Project development is 'free', but uses ACCSP resources



SciFish Advisory Panel

SciFish: accsp.org/what-we-do/scifish/

Julie Simpson, ACCSP
Julie.Simpson@accsp.org



StreamNet and MonitoringResources.org Connections

- **Monitoring Resources Data Connectivity & Improvements Analysis Report**
 - Prepared by ESA from the input of PNAMP, PSMFC, DFO Canada, and BPA over multiple sessions
 - Restructure Monitoring Resources to better accommodate long trends (HLIs)
 - Reminders to update data collection events in Monitoring Resources when uploading data to StreamNet
 - Add focal species to Monitoring Resources Sample Designer – connects to StreamNet and CBFish
 - Utilize AI/ML to simplify/kickstart metadata documentation
- **Update map layers and standardize symbology**
 - NOAA is in the process of standardizing the SW and NW regional datasets: includes ~ 280 ESUs and pops
 - Continue to work on improving the Facilities dataset, anticipate WDFW to submit updated data
 - Update to FishDist, plan to incorporate a data submission from MFWP and hopefully others



A close-up photograph of a large pile of apples. The apples are in various colors, including yellow, green, and red, and are arranged in a dense, overlapping pattern. The lighting is bright, highlighting the texture of the apple skins.

BREAK
return at 2:55

Member Updates/Round Robin

Share your news! Just keep it short – please stay under 3 minutes.

We will rotate between in-person and virtual participants, raise your hand online to be queued for your update

StreamNet ExCom Members *indicates participation with PNAMP SC

- Jody Lando*, BPA
- John Arterburn*, Colville Tribes
- Donella Miller and Sheryn Olson, CRITFC
- John Cassinelli, IDFG
- David Schmetterling, MFWP
- Patty O'Toole*, NPCC
- Greg Sieglitz*, NOAA Fisheries
- Katie Barnas, NOAA Northwest Fisheries Science Center
- Ian Tattam* and Art Martin, ODFW
- John Netto, USFWS
- Phil Sandstrom*, WDFW

Additional PNAMP Steering Committee Signatory Members

- Denise Kelsey, CRITFC
- Tim Copeland, IDFG
- Chris Jordan, NOAA-Northwest Fisheries Science Center
- Courtney Shaff, OWEB
- Mike Brown, US BLM
- Lisa Kusnierz, US EPA
- Chris Hirsch, USDA Forest Service
- Steve Waste, USGS
- Ed Krynak, WA Ecology
- Greer Maier, WA GSRO





Wrap up and Next Steps



Adjourn



StreamNet Executive Committee Meeting

November 7, 2024

Day 2 of Joint PNAMP - StreamNet Meeting

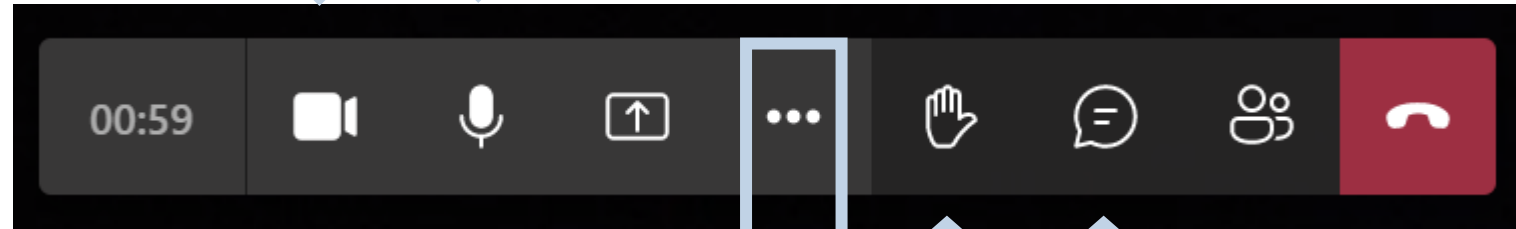
Welcome

Please leave web cameras on
to facilitate discussion

Click to turn video
camera off/on

Please turn mute when not speaking.

Click to turn
microphone off/on



Check device settings
if you are having problems with
audio/video

Raise your hand or put
it in the chat

Questions or comments



StreamNet

www.streamnet.org

Introductions

All online participants, please use the chat to provide your name and affiliation

All participants, introduce yourself when your name is called

- In-room participants
- MS Team participants

Please leave web cameras on to facilitate discussion



Agenda

(times are approximate, Pacific Time)

November 7, 2024

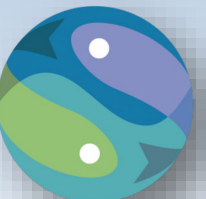
TIME (PT)	AGENDA ITEM
9:00	Welcome and introductions
9:10	Action Item Updates
9:30	StreamNet Tech Team Updates
9:50	Stretch Break
10:00	CAP 5-year plan
10:30	HCAX Implementation
11:00	Adjourn/Lunch



Cascara tree by Mari Williams

StreamNet Executive Committee Updates on Action Items from 2023

Nancy Leonard



Action Items from 2023

1) CAP HCAX

- Organize HCAX final meeting and wrap up grant

2) MAFAC dashboard

- Finalize and inform Columbia Basin Collaborative.

3) Screw Trap Dashboard

- Determine appropriate resolution for locations
- Confirm and implement process to update content

4) CAP Fish HLI action items

- Identify options for data download tracking
- As applicable review/revise/expand data discovery naming standards
- Update and deploy new CAP DES version and clarify terms
- Approach to communicate to the public target data update date range for CAP Fish HLI



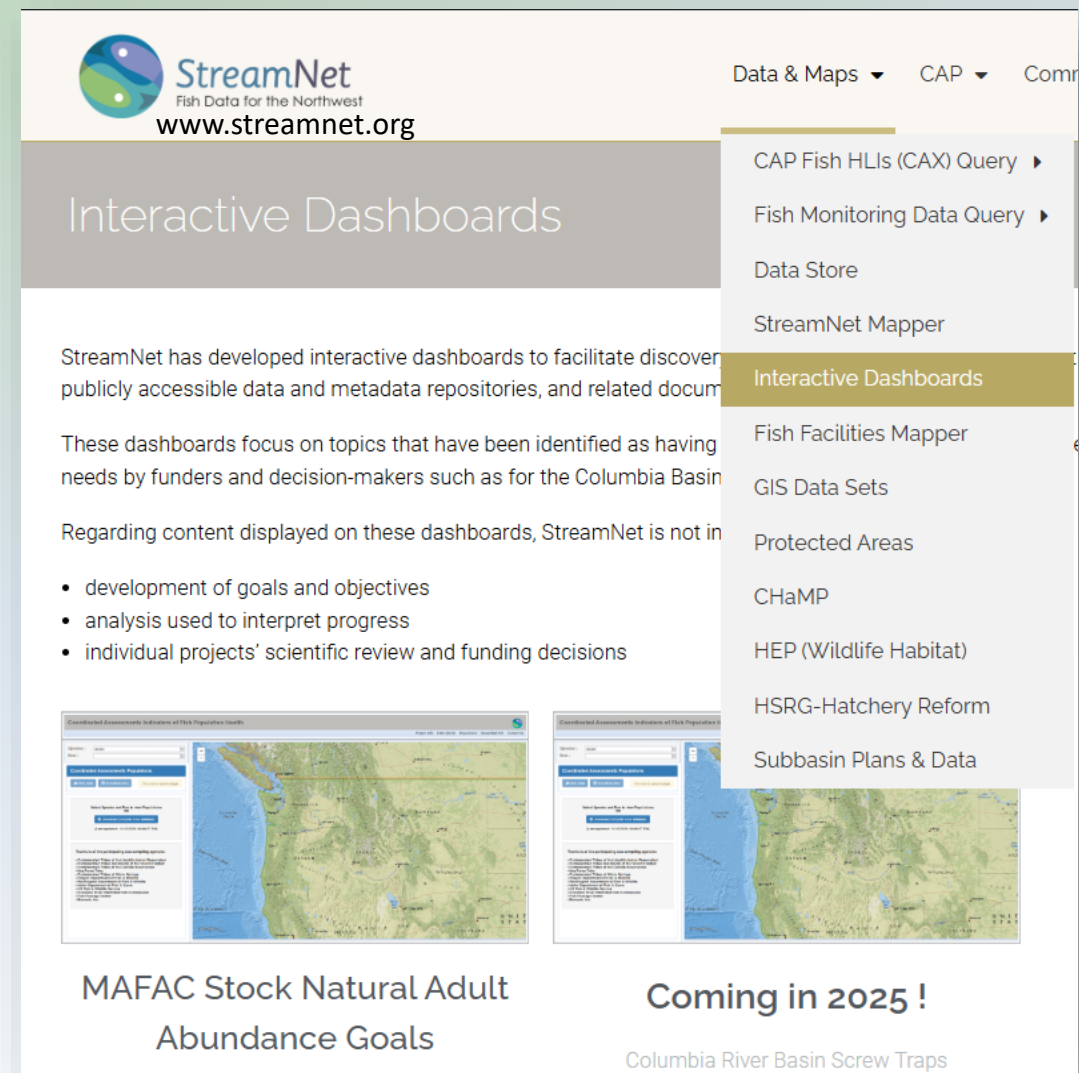
HCAAX EPA Grant wrap up

- Final HCAAX meeting held May 21, 2024
- Contract ended August 31, 2024
- Final invoices received October 2024
- Submitted final report to WA GSRO (prime on grant) November 2024

1) CAP HCAAX

Finalize and inform Columbia Basin Collaborative

- Shared information on the CAP Fish HLI and MAFAC with CBC
 - Sept 24th
 - Oct 10 (CBC Assessment & Trends Sub-group)
- Performed QA/QC, updated documentation, and finalized further refinements
- Now accessible from www.streamnet.org



The screenshot shows the StreamNet website interface. At the top left is the StreamNet logo with the tagline 'Fish Data for the Northwest' and the URL 'www.streamnet.org'. To the right are navigation links for 'Data & Maps', 'CAP', and 'Comr'. A dropdown menu is open under 'CAP', listing various tools and data sources, with 'Interactive Dashboards' highlighted. Below the menu, the page title 'Interactive Dashboards' is displayed. The main content area contains introductory text about the dashboards' purpose and a list of topics they focus on. At the bottom, two dashboard thumbnails are shown: 'MAFAC Stock Natural Adult Abundance Goals' and 'Coming in 2025! Columbia River Basin Screw Traps'.

StreamNet
Fish Data for the Northwest
www.streamnet.org

Data & Maps ▾ CAP ▾ Comr

CAP Fish HLIs (CAX) Query ▶
Fish Monitoring Data Query ▶
Data Store
StreamNet Mapper
Interactive Dashboards
Fish Facilities Mapper
GIS Data Sets
Protected Areas
CHaMP
HEP (Wildlife Habitat)
HSRG-Hatchery Reform
Subbasin Plans & Data

Interactive Dashboards

StreamNet has developed interactive dashboards to facilitate discovery of publicly accessible data and metadata repositories, and related documentation.

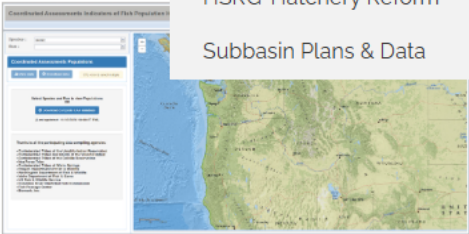
These dashboards focus on topics that have been identified as having needs by funders and decision-makers such as for the Columbia Basin Collaborative.

Regarding content displayed on these dashboards, StreamNet is not involved in:

- development of goals and objectives
- analysis used to interpret progress
- individual projects' scientific review and funding decisions



MAFAC Stock Natural Adult
Abundance Goals

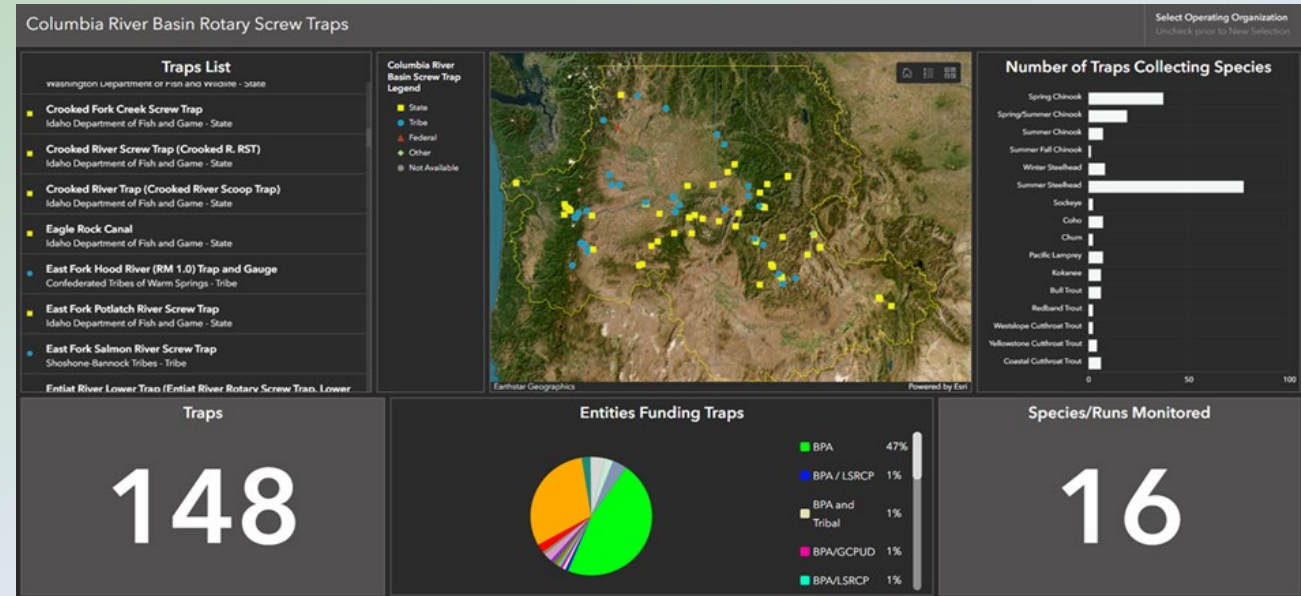


Coming in 2025!
Columbia River Basin Screw Traps

2) MAFAC dashboard

Determine appropriate resolution for locations & confirm and implement process to update content

- Discussed at StreamNet Tech Team meetings and Steering Committee meetings regarding the options to obscure exact location
- Work is in progress for the Rotary Screw Trap Dashboard (connects to FMWG task)



3) Screw Trap Dashboard

The screenshot displays the 'Fish HLIs: Coordinated Assessments Indicators of Fish Population Health' web application. A 'Coordinated Assessments Data Download' pop-up window is centered, prompting the user to 'Provide your email address to download the data:' with an example 'Jane@gmail.com' and 'Submit' and 'Cancel' buttons. The background shows a 'Filter Options' section with dropdowns for HLI Type, Population Name, ESU/DPS, Species, Run, and Compiled By. Below the filters is a table of 890 records, with the first row visible: NOSA, South Fork Clearwater River Upper, 2012-2019, 8 years, Chinook salmon, Spring/summer, Same, 2, Yes, NPT, South Fork Clearwater. To the right, a map titled 'Chinook salmon - Fall run' shows the Big Creek area with a red overlay.

HLI	Population Name	Span	Yrs	Species	Run	Popfit	Met				
NOSA	South Fork Clearwater River Upper	2012-2019	8	Chinook salmon	Spring/summer	Same	2	Yes	NPT	South Fork Clearwater	

Identify options for data download tracking

- Discussed at StreamNet Tech Team meetings
 - Pop up/intercept page requesting email and affiliation
- Not yet finalized for implementation

4) CAP Fish HLI action items



Coordinated Assessments Data Exchange Standards

Version 20240517

Approval Date: 5/17/2024

Effective Date: 7/22/2024

Update and deploy new CAP DES version and clarify terms

- CAP DES updated 7/2024 (*more details next agenda item*)
- Clarification of terms and definitions in process
 - FMWG task group expertise will be leveraged to inform clarifications included in the queries and downloaded files

4) CAP Fish HLI action items

As applicable review/revise/expand data discovery naming standards

- The Data Discovery Naming standards discussion was assigned to the technical team.
- Tech Team formalized the naming convention standards for
 - natural origin (NO) salmon aligns with NOAA formal name structure
 - hatchery origin fish similar to NO structure with adjustments for stocks

The screenshot shows the StreamNet website with the following content:

- StreamNet** logo: Fish Data for the Northwest
- Navigation menu: Data & Maps, CAP, Committees, Resources, About
- Page title: Standards and Processes
- Introductory text: "To support interoperability across PSMFC data systems and to facilitate discoverability of content on StreamNet systems the StreamNet adheres to adopted standards and conventions, and follows specific processes agreed to by StreamNet members."
- Text: "Below we identify existing standards, conventions, and processes used by StreamNet"
- Section: **Data QA QC**
- Section: **Fish naming conventions**
- Text: "To facilitate querying data available for anadromous and resident fish species, StreamNet Program has adopted a naming convention used in its query tools. American Fisheries Society (AFS) standards for capitalization are followed."
- Natural populations:** "Follow the formula for names already in use for other populations/superpopulations. <https://www.streamnet.org/cap/current-hli/current-pop/>"
- Hatchery stocks:** "Stock designations may also identify wild-origin adults collected in hatchery facilities or for hatchery operations. Stock names without a "wild" designation indicate a hatchery or mixed stock type."
- Hatchery stock names and natural population names use this naming convention:**
 - Names use the form <source location(s)> <dash> [wild]<run(s)> <species>. For example, "Big Creek – winter Steelhead".
 - Include specifiers such as "River" and "Creek" in the name.
 - Use hyphens where necessary, such as for "mid-Columbia".
 - Use "and" for multiple locations; use ampersand for multiple runs.
 - Capitalization: The first word, and proper nouns, are capitalized; other words are not. AFS considers accepted common names to be proper nouns, e.g. "Bull Trout", "Coho Salmon".
 - Do the best possible for complex instances where the rules cannot apply perfectly. (This mostly applies to superpopulations.)
 - Clarifying information goes in parentheses; information in addition to the name goes in square brackets.
 - E.g. "Big Creek (near Alsea) – fall Coho Salmon"; "Burnt River – spring Chinook Salmon [extirpated]".

4) CAP Fish HLI action items

Approach to communicate to the public target data update date range for CAP Fish HLI

- Determined not possible to use existing update field to automate a target date range for CAP fish HLI data.
- Developed a webpage to house the update date range table.
- Update date range table populated with data provided by data providers.

The screenshot shows the StreamNet website interface. At the top, there is a navigation bar with links for 'Data & Maps', 'CAP', 'Committees', 'Resources', and 'About'. Below this is a 'Data Updates' section with a dropdown menu for 'CAP Fish HLIs (CAX) Query'. The dropdown menu includes options like 'Fish Monitoring Data Query', 'Data Store', 'StreamNet Mapper', 'Interactive Dashboards', 'Fish Facilities Mapper', 'GIS Data Sets', 'Protected Areas', 'CHaMP', 'HEP (Wildlife Habitat)', 'HSRG-Hatchery Reform', and 'Subbasin Plans & Data'. The main content area contains text explaining the estimated date ranges and a table of data updates.

The column headings in the below table refer to:

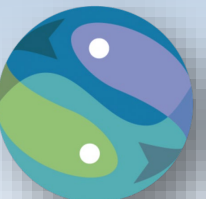
- Agency: Abbreviation for entity submitting data updates
- DataSet: Name of the data repository within StreamNet
- Data Category: data type descriptor
- Species and Run: Species and Run of fish
- Compiled by: Entity
- Target Date Range: General estimate of when data will be submitted to StreamNet

Agency	Data Set	Data Category	Species	Run	Compiled By	Target Date Range	Notes
IDFG	Coordinated Assessments (natural origin)	Juvenile Outmigrants	Chinook	Spring/Summer	IDFG	Summer	MARTRP retired 2022
IDFG	Coordinated Assessments (natural origin)	Juvenile Outmigrants	Steelhead	Summer	IDFG	Summer	MARTRP retired 2022
IDFG	Coordinated Assessments (natural origin)	NOSA	Chinook	Spring/Summer	IDFG	Spring	

4) CAP Fish HLI action items

StreamNet Team Updates

Mari Williams



SN Tech Team



Meetings in March and July

✓ DES Releases

- StreamNet DES 2024.1 effective 2/1/2024
- CA DES update effective 7/22/2024
 - TimeSeriesID
- HCA ("HCAX") DES 6/14/2023

✓ Web page for expected data updates

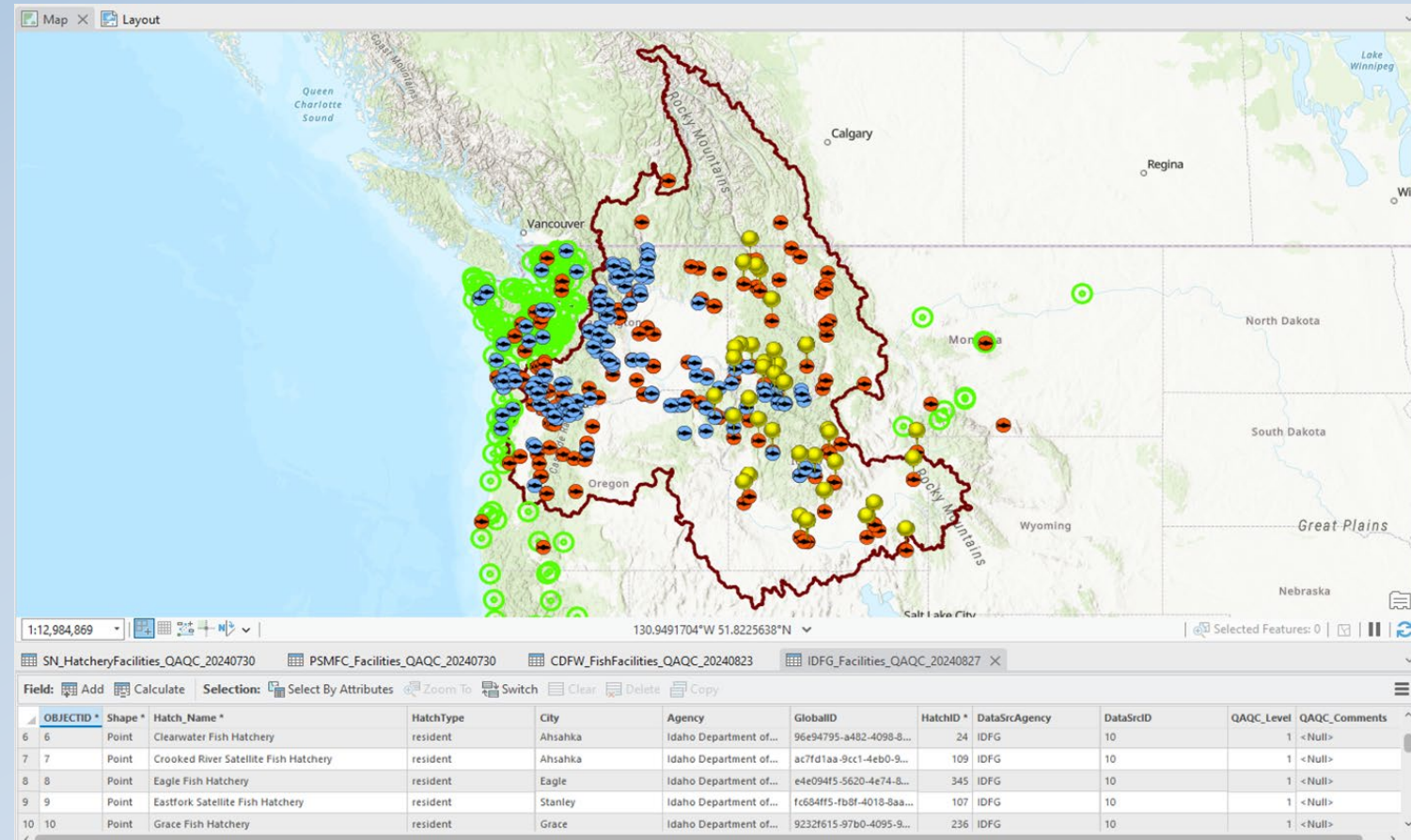
- Available at <https://www.streamnet.org/home/data-maps/data-updates/>

✓ Rotary Screw Trap Dashboard

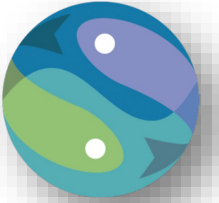


PSMFC GIS and StreamNet

- PSMFC GIS 'Fish Facilities' dataset
- Designed to promote consistent georeferencing and encourage integration across projects and partnerships
- working with StreamNet partners to QA/QC the existing data outside of the CRB



Fish Facilities GIS dataset



QA/QC Process involves:

- 1) Comparing existing PSMFC dataset with original StreamNet datasets and best available source agency data.
- 2) Confirming locational accuracy and consistency of attribution where a facility occurs in multiple datasets. Defer to source agency but compare to aerial imagery as well.
- 3) Compare and reconcile attributes, purposely retaining [HatchID] while using Alternate name and Comment fields to describe edits or questions.
- 4) Potentially add facilities from source agency with support from partners



CAP DES Development Team



TimeSeriesID added to Natural Origin CAP DES

A1. NOSA Table

This table stores information concerning natural origin spawner abundance (NOSA) and natural origin escapement. NOSA refers to the number of live natural origin fish available to participate in natural spawning during the spawning period. Escapement refers to the number of natural origin fish returning to spawn that pass upstream of a specified location during a specified time period.

[\(Back to Table of Contents\)](#)

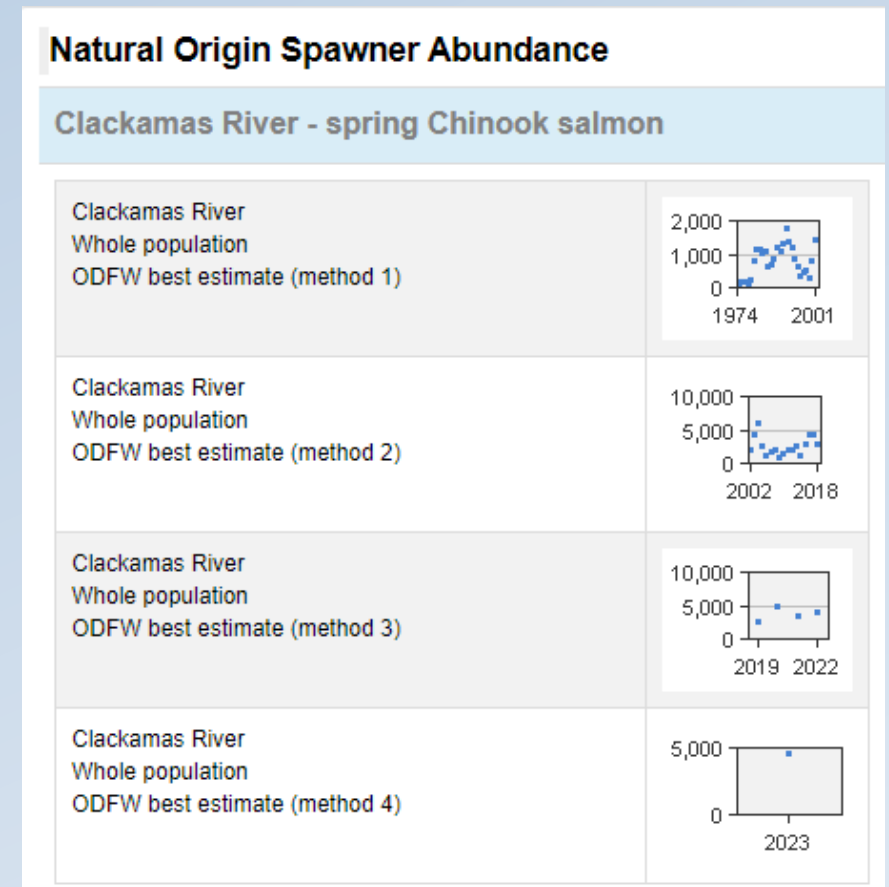
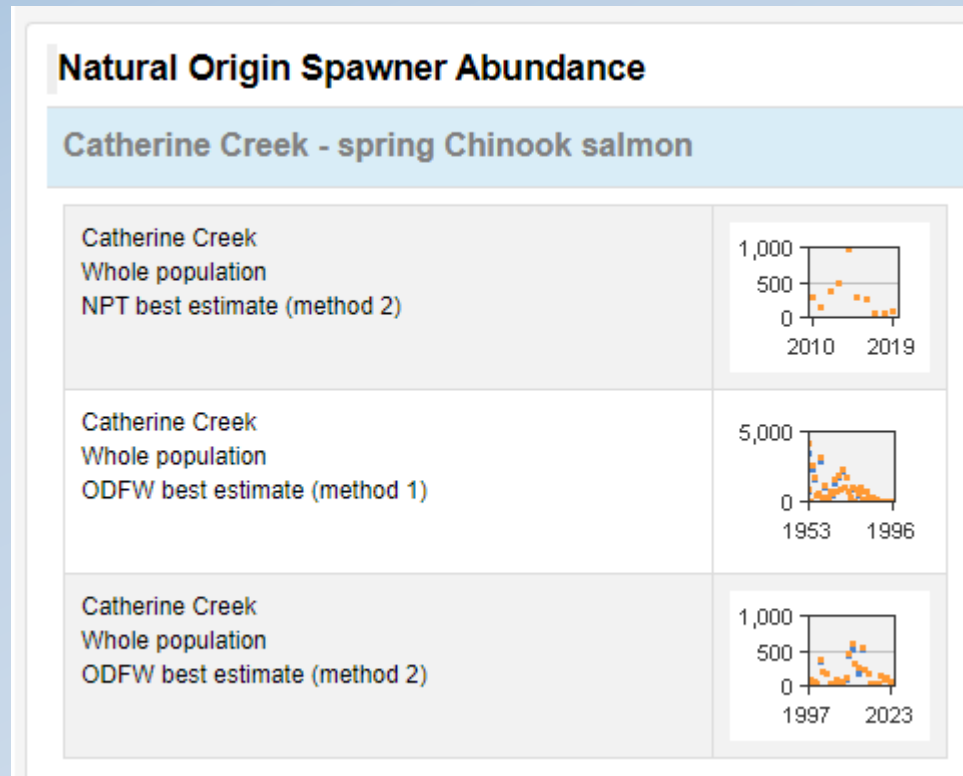
Field Name	Field Description	Data Type	Codes/Conventions for NOSA Table
Fields for defining a unique record			
ID (unique)	Value used by computer to identify a record.	GUID	This value is a globally unique identifier (GUID) exactly 36 characters long. <ul style="list-style-type: none">• When submitting a new record you may include this value or leave it blank. If you include this value then it will be used by the central system. If you leave it blank then a value will be created for you, and it will be sent back to your system where it must be incorporated.• When updating or deleting records this value must be included.
TimeSeriesID	This field identifies the time series a record belongs to. Records with the same TimeSeriesID are grouped and presented together on the CAX query systems. Assigned by data compilers or regional data assemblers as appropriate.	Integer	TimeSeriesID is used in several tables in this DES, in several tables in the CA hatchery DES (HatcheryReturns, etc.), and in the Trend table of the StreamNet DES (where it is called "TrendID"). The same TimeSeriesID cannot be used in more than one of these tables. Assigned TimeSeriesID ranges are the same as assigned TrendID ranges in the StreamNet DES. Coordinate with other personnel in your organization assigning TimeSeriesID and TrendID values. 10,000-19,999 = MFWP 20,000-22,499 = CRITFC

CAP DES Development Team



TimeSeriesID added to Natural Origin CAP DES

- Can effectively communicate if records for the same population can be used together for timeseries analysis



CAP DES Development Team

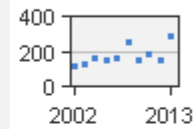


TimeSeriesID

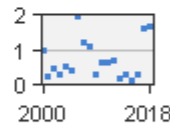
Recruits per Spawner

Entiat River - spring Chinook salmon

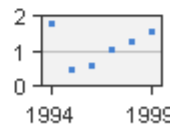
Entiat River - Entiat River
Whole population
Recruits = Returns to spawning ground
R/S Type = Smolts per female spawners
USFWS best estimate (method 1)



Entiat River - Entiat River
Whole population
Recruits = Returns to spawning ground
R/S Type = Total recruits per total spawners
USFWS best estimate (method 1)



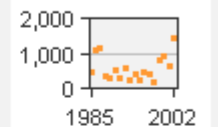
Entiat River - Entiat River
Whole population
Recruits = Returns to spawning ground
R/S Type = Total recruits per total spawners
WDFW best estimate (method 1)



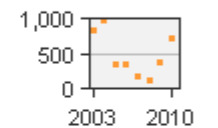
Natural Origin Spawner Abundance

Fifteenmile Creek - winter Steelhead

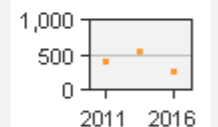
Fifteenmile Creek and tributaries
Whole population
ODFW best estimate (method 1)



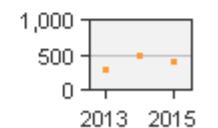
Fifteenmile Creek and tributaries
Whole population
ODFW best estimate (method 2)



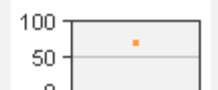
Fifteenmile Creek and tributaries
Whole population
ODFW best estimate (method 3)



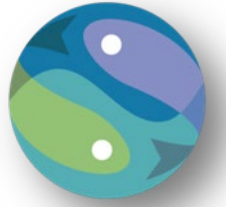
Fifteenmile Creek and tributaries
Whole population
ODFW best estimate (method 4)



Fifteenmile Creek and tributaries
Whole population
ODFW best estimate (method 5)



CAP DES Development Team



TimeSeriesID added to Natural Origin CAP DES

DataStatus Table Proposal from ODFW

- Additional information can be included in a TimeSeriesID Table
- Define the TimeSeriesID and include any information relating to the series once rather than in each record in the HLI tables
- Can facilitate data update expectations and automate the table
- Can identify in one record if monitoring has ended

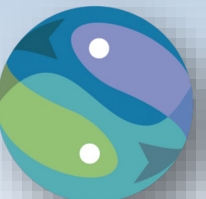
Break



Photo by Mari Williams

CAP 5-year Plan

Nancy Leonard



CAP 5 Year plan

Current Version:

[Five-Year Plan for Coordinated Assessments Partnership
2nd revision of the 2019 adopted version \(rev Nov 2022\)](#)

- This is the last year for this plan's period
- Suggestions for changes (addition/deletion) for the next 5 year period?
- Next Steps
 - CAP Core Team will draft next plan
 - Will refresh document title and format to align with content and usage (e.g., strategic plan)

Five-Year Plan for Coordinated Assessments Partnership
October 2019 – September 2024 (Adopted August 1, 2019, 1st rev. adopted September 9, 2021,
2nd revision adopted November 2022)

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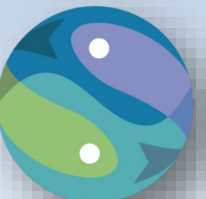
Introduction

The Coordinated Assessments Partnership (CAP) is a collaborative process to efficiently share fish information within the Pacific Northwest by providing access to standardized derived information needed for reporting and decision-making by natural resource managers and regulators. The information shared through the CAP represents the partners' best available science and, when appropriate, these entities' (federal/tribal/state agencies or others) endorsed official records such as those used in regulatory fish assessments for the Endangered Species Act (ESA) or other reporting requirements. The CAP is co-sponsored by the Pacific Northwest Aquatic Monitoring Partnership (PNAMP) and Pacific States Marine Fisheries Commission (PSMFC) StreamNet Program (StreamNet), with participation by federal, tribes, states and tribal consortia fish biologists and data stewards who ensures data quality and flow.

The CAP was initiated in the Columbia River Basin during 2010 with PNAMP and StreamNet co-sponsoring the effort. The CAP has been funded through multiple sources secured by the co-sponsors, PNAMP and StreamNet, and the numerous federal, tribes, states and tribal consortia partners that engage in the CAP. Participation in the CAP has thus far reflected the early focus of the CAP, namely providing coordinated assessments for Columbia River Basin salmon and steelhead populations. View Appendix A for more details on the implementation approach as well as the groups supporting and informing implementation of the CAP Bonneville Power Administration (BPA) has been an important source of funding for CAP activities that support BPA's work consistent with the Northwest Power and Conservation Council's (NPCC) Columbia River Basin Fish and Wildlife Program (FW-Program) and Endangered Species Act (ESA).

HCAx Implementation

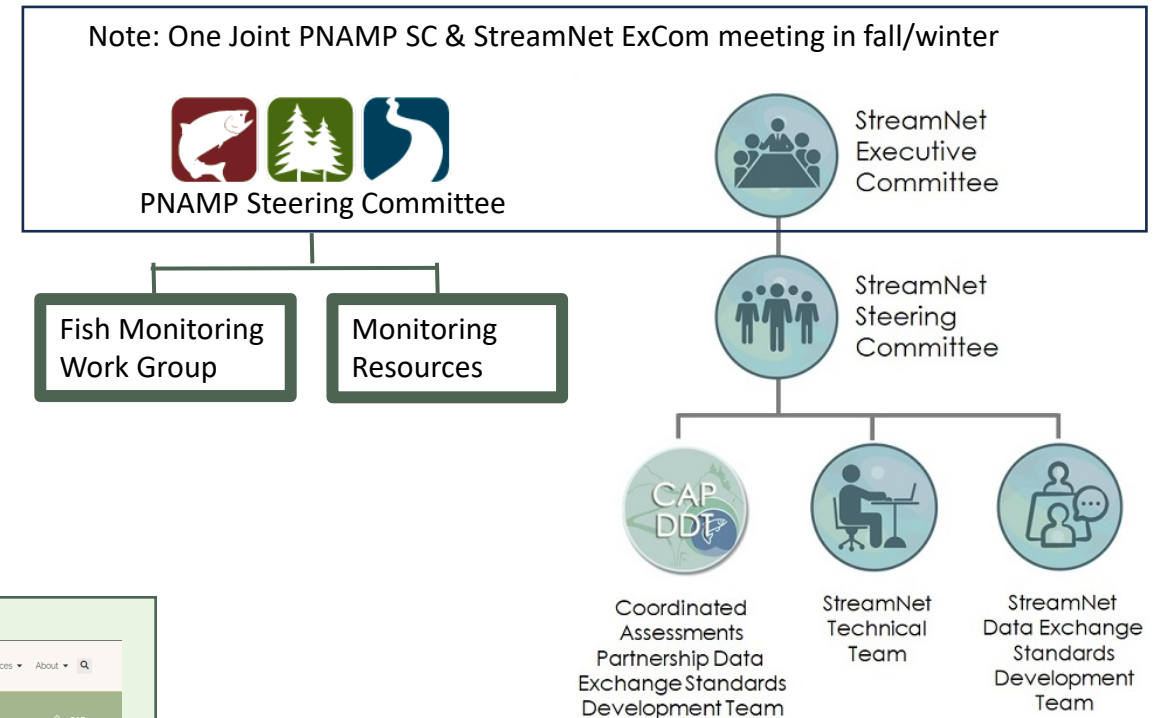
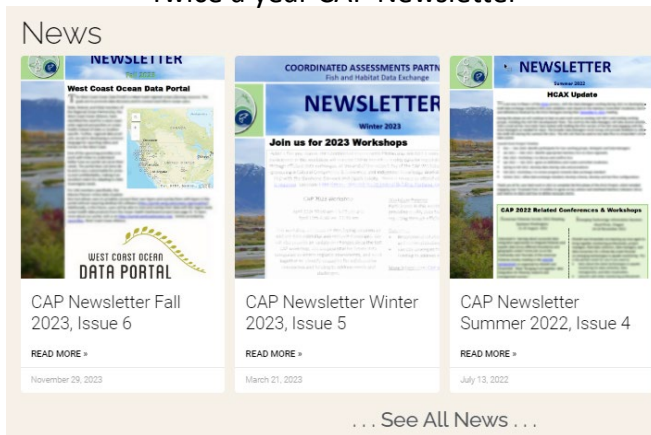
Mari Williams



CAX + HCAX Engagement and Upkeep

Leveraging existing Coordinated Assessments Partnership structure and outreach approach co-led by Pacific Northwest Aquatic Monitoring Partnership and StreamNet

Twice a year CAP Newsletter



Data Sharing Data Use Agreements



Data Policy and Agreements

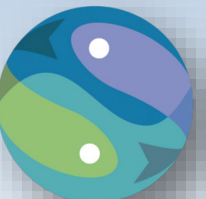
Feedback provided and incorporated.

Final draft available at the link.

SN SC approval?

ExCom review and approve for full implementation.

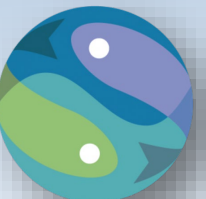
[Data Policy and Agreements - StreamNet](#)



Resources needed for HCAX exchange with data providers

Discussion among members about needs to achieve data desired data flow:

- Internal data management and modernization?
- Resources – staff, training, supplies?
- HCAX workshop at WA/BC AFS in Vancouver, BC - March 2025



2025 SN ExCOM meeting & Wrap Up

- Plan to hold as Joint PNAMP SC & SN ExCom meeting with same structure
- PNAMP will send a poll for the 2025 meeting date (MS Forms)



StreamNet

www.streamnet.org



pacific northwest aquatic
monitoring partnership