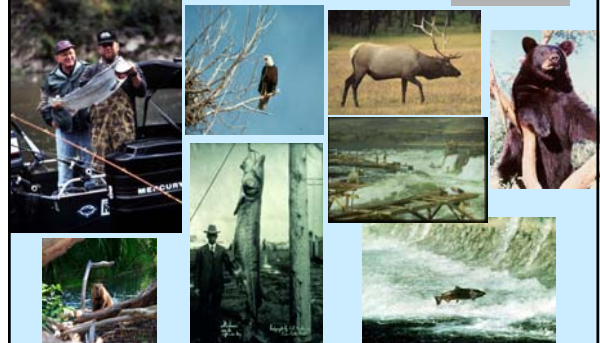


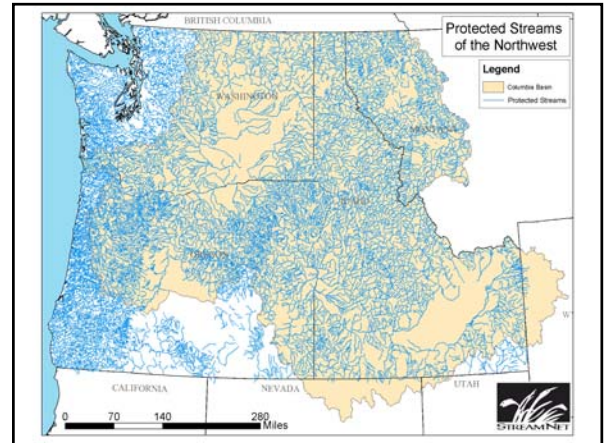
Collaborative Approaches to Monitoring and Data Sharing in the Pacific Northwest

Bruce Schmidt
 Pacific States Marine Fisheries Commission
Delivered at:
 Organization of Fish and Wildlife Information Managers
 2006 Annual Meeting
 Minneapolis, MN

The Pacific Northwest Is Widely Known For Fish & Wildlife Resources

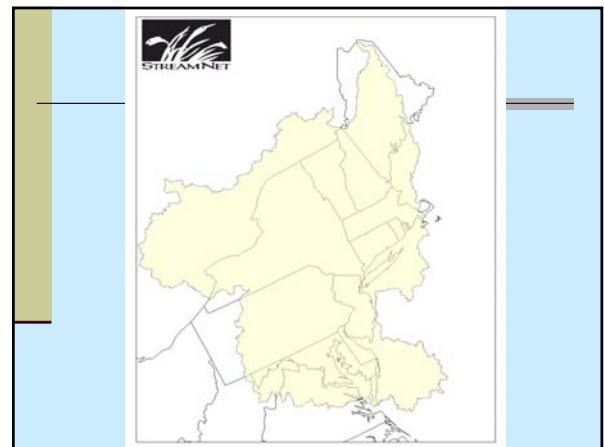


The Region is Enormous



Columbia R. Basin

- Large!
- Diverse
- 7 States
- 1 Province
- Continental Divide to Pacific Ocean



The Pacific Northwest is a Jumble of Fish and Wildlife Authorities!

State Fish & Wildlife Agencies



Federal Management Agencies

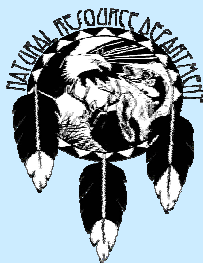
- Primary authority for listed species, waterfowl



Federal Agencies (habitat, environment)



13 Tribal Governments in Columbia Basin alone (co-management)



Other State Agencies (environment)



Special Purpose Authorities (wide scope)



There is no single entity “In Charge”

- States manage only within their state
- Tribes manage only within their authority area
- The tribes are located inside state boundaries
- NOAAF authority only for ESA or inter-jurisdictional fisheries, FWS for ESA, waterfowl
- Regional entities fund only a portion of the work
- Federal agencies are empowered by ESA, but
- Monitoring is done by states and tribes
- No standardization between data collectors

So, how do you monitor what is happening to the wildlife?

- No standardized sampling protocols
- No standardized data definitions
- No standardized data coding

Some Attempts to Coordinate

- **StreamNet** collects some types of fish data, standardizes over the region, and posts
- Other data projects focus on some specific types of data
- Independent data projects pop up, e.g., NOAA Fisheries

But, no efforts are comprehensive

- Sampling done by agencies serves agency needs – further sharing of data not a mandate
- Regional entities may, or may not, be able to use that sampling on a larger scale
- Except for the regional data projects, the data can't be compared across agency lines
- Regional entities may find that the data that are collected don't meet their needs – but, they don't pay for the sampling

Now, how to fix the mess?

Two Areas of Focus

Need to encourage standardization to the degree reasonably possible:

- Data Collection Standards
- Data Standards

These are two sides on the same coin!

Data Collection...

- No guidance from the top – agencies are independent
- The first promising efforts came from biologists working to monitor fish habitat conditions
- “Wouldn’t we all get more out of monitoring if we all did it the same way?”
- Created a partnership that grew to include federal land managers, states, tribes, and federal agencies (at the field level)
- Ultimate objective – Data Collection Standards

Study to Compare Methods

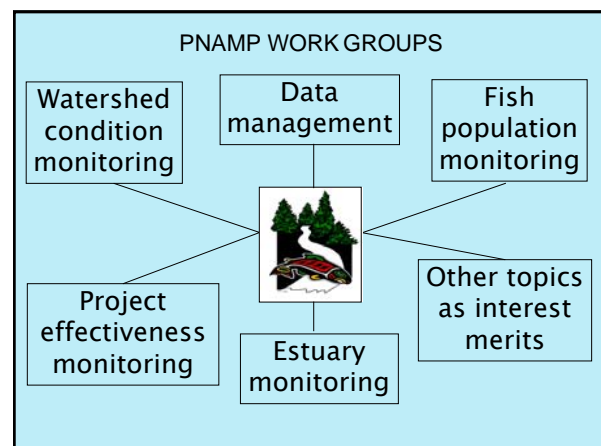
- Based on a study that found inconsistencies among methods
- Designed study among state and federal agency aquatic habitat monitoring protocols
- Chose one location, crews from all agencies sampled the same stream sites
- Result will be a recommendation on which method(s) give the best precision and accuracy.

The Effort Becoming Successful...

- Led to the concept that other aspects of aquatic monitoring could benefit by comparing methods and recommending the best
- Grew into a more formal organization: The Pacific Northwest Aquatic Monitoring Partnership - **PNAMP**
- Members include federal land managers, fish habitat specialists, estuary specialists, etc.
- Missing is state/tribal fish management!

PNAMP is:

- Voluntary
- Collaborative
- Non-authoritative
- Gaining top-down perspective
- Expanding to address wider aspects of aquatic monitoring – “self organizing”



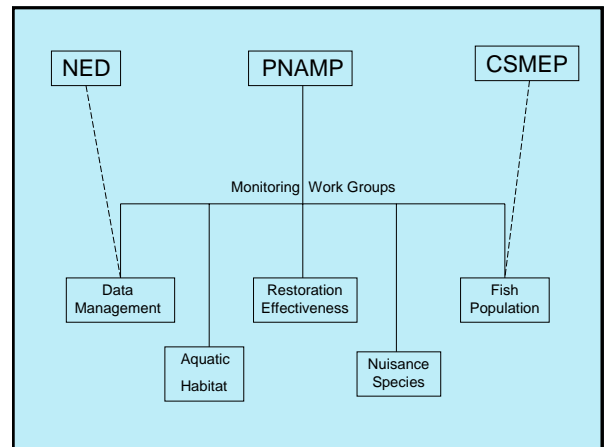
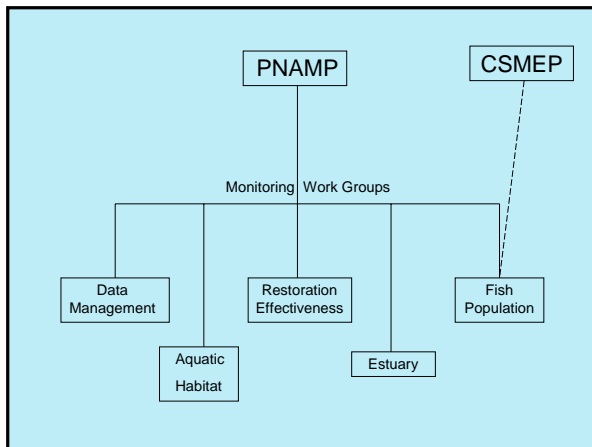
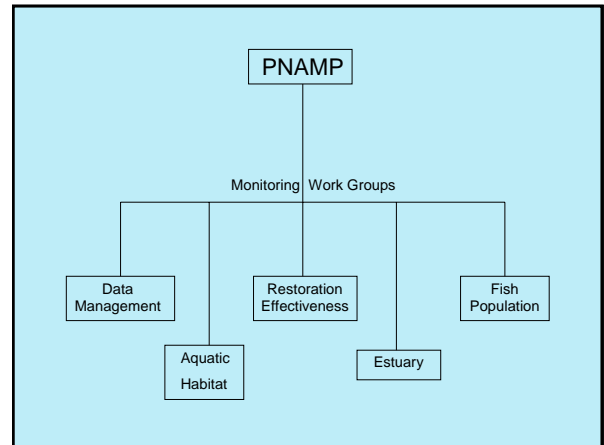
Related Effort, Data Collection...

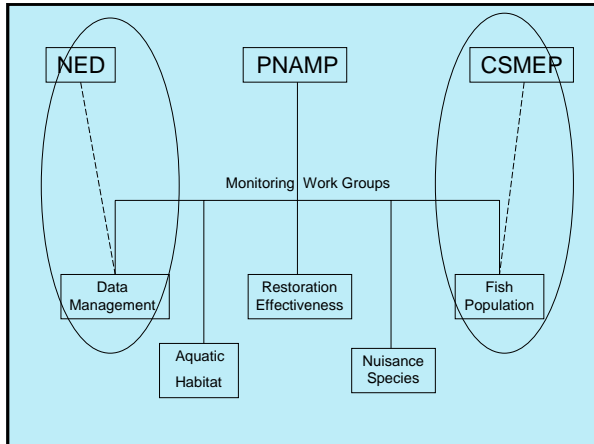
- Collaborative Systemwide Monitoring and Evaluation Project - CSMEP
 - Focused on salmonid population monitoring
 - Columbia Basin only
 - State and tribal fish management agencies
 - Intent to determine most appropriate ways to monitor fish populations.
 - Evaluating existing data for that purpose
 - Then, evaluate, recommend sampling approach

Data Management...

- Northwest Environmental Data-network – NED
 - Focused on regional data sharing & standards
 - Voluntary, collaborative
 - Publishes 'best practices' documents to promote minimum standards
 - No authority to mandate use of standards
 - Demo new data technology – NED Portal

How does all this come together?





So, what have we learned?

- The data can stitch it all together!
- We need to work toward greater standardization
 - Both data collection standards and data standards
- Collaboration is essential. The authoritative approach unlikely to succeed

What do we still need?

- Greater commitment from agencies
 - Funding for managing the effort
 - Commitment to provide staff time
 - These are not agencies, can't produce products on a timeline if only voluntary time
- Willingness to adopt the standards
 - Strategy – have biologists recommend using standards from within the agency
- Clarify 'bottom up' v. 'top down' approach
- Support for data collection agencies to stimulate data sharing

The Ultimate Vision

- Similar data collected with standard methods, all agencies
- Data in same formats, with standard definitions
- Agency data consolidated in their own databases
- Data available online, through centralized warehouses, with the warehouses coordinated through portal(s)
- Eventually, Distributed Database Management Systems



Regional Monitoring Partnership

