Status and Management of Coastal Cutthroat Trout in Washington State

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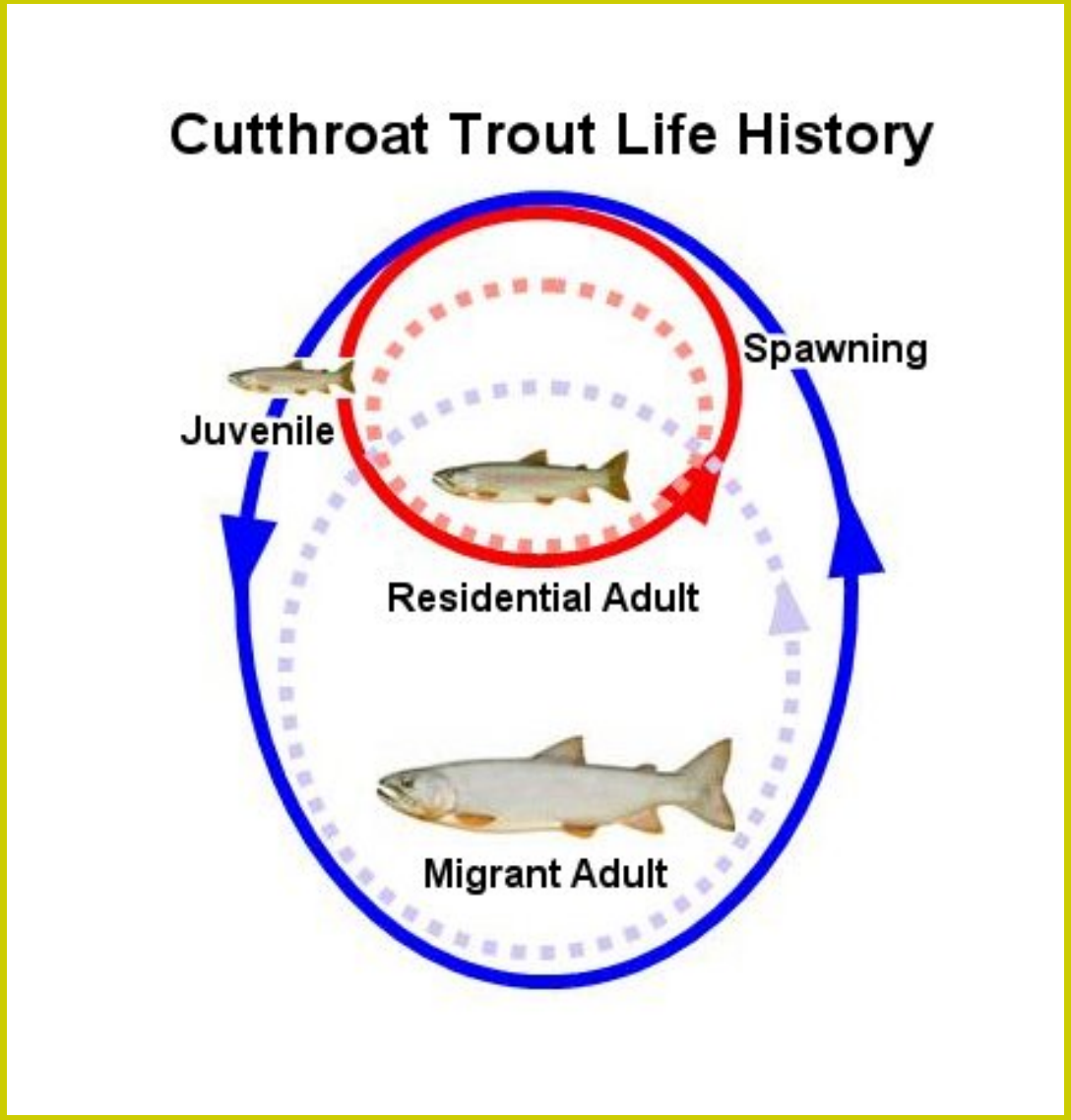
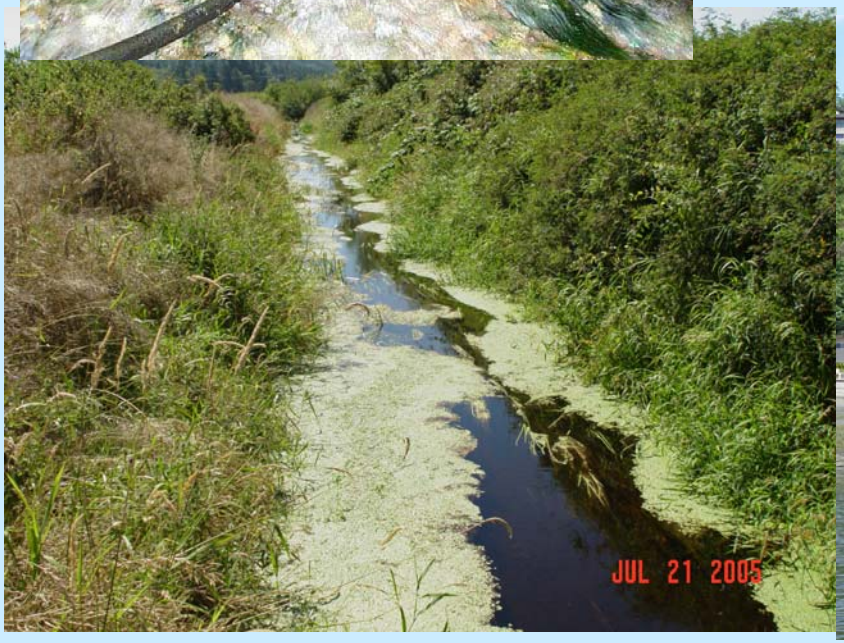
Washington Department of FISH AND WILDLIFE

- **Resident**
- **Potamodromous**
- **Fluvial**
- **Adfluvial**
- **Amphidromous**
- **Anadromous**



Factors Affecting Stock Status:

Habitat



Factors Affecting Stock Status:

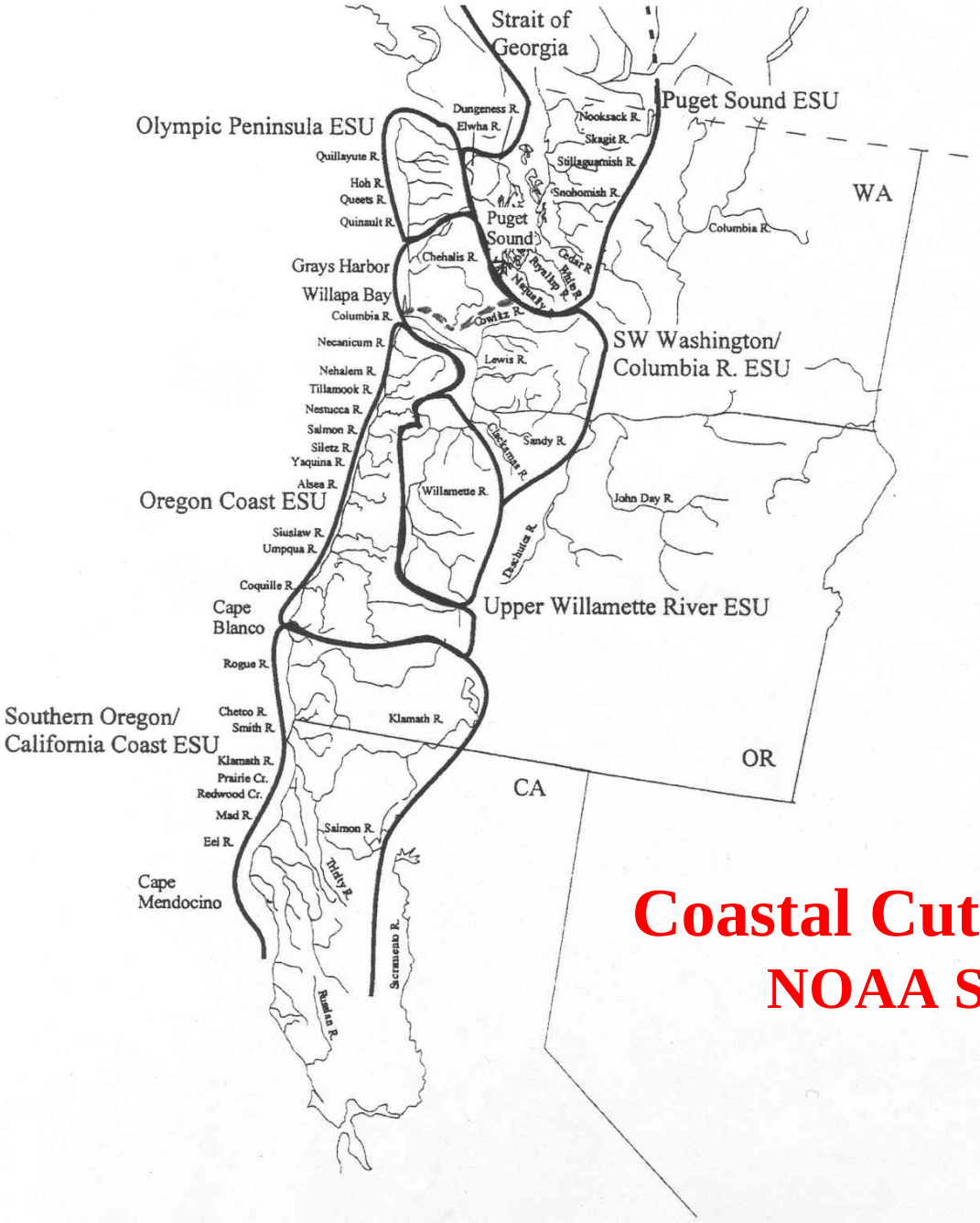
Species Interactions

Factors Affecting Stock Status:

Harvest

And

Hatchery



Coastal Cutthroat Populations -

NOAA Status Review 1999

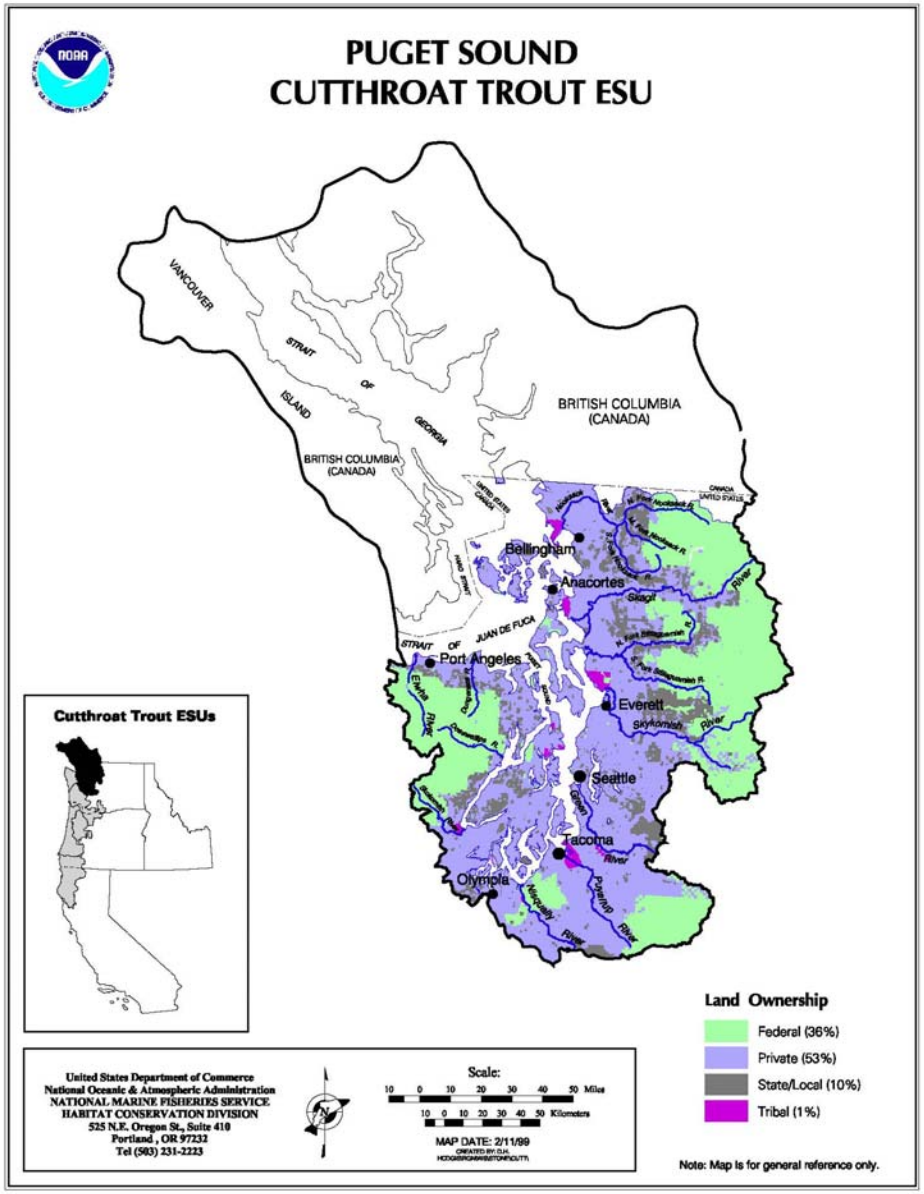
Coastal Cutthroat SaSI

- - Salmonid Stock Inventory
- - June 2000
- - Ann Blakley, Bob Leland, Jim Ames
- - Identified 40 “Stock Complexes”

- - One is “Healthy”
- - Seven are “Depressed”
- - None are “Critical”
- - Thirty-Two are “Unknown”

Stock Complexes and Stock Status

Photo Courtesy BC Fly Fisher Guides

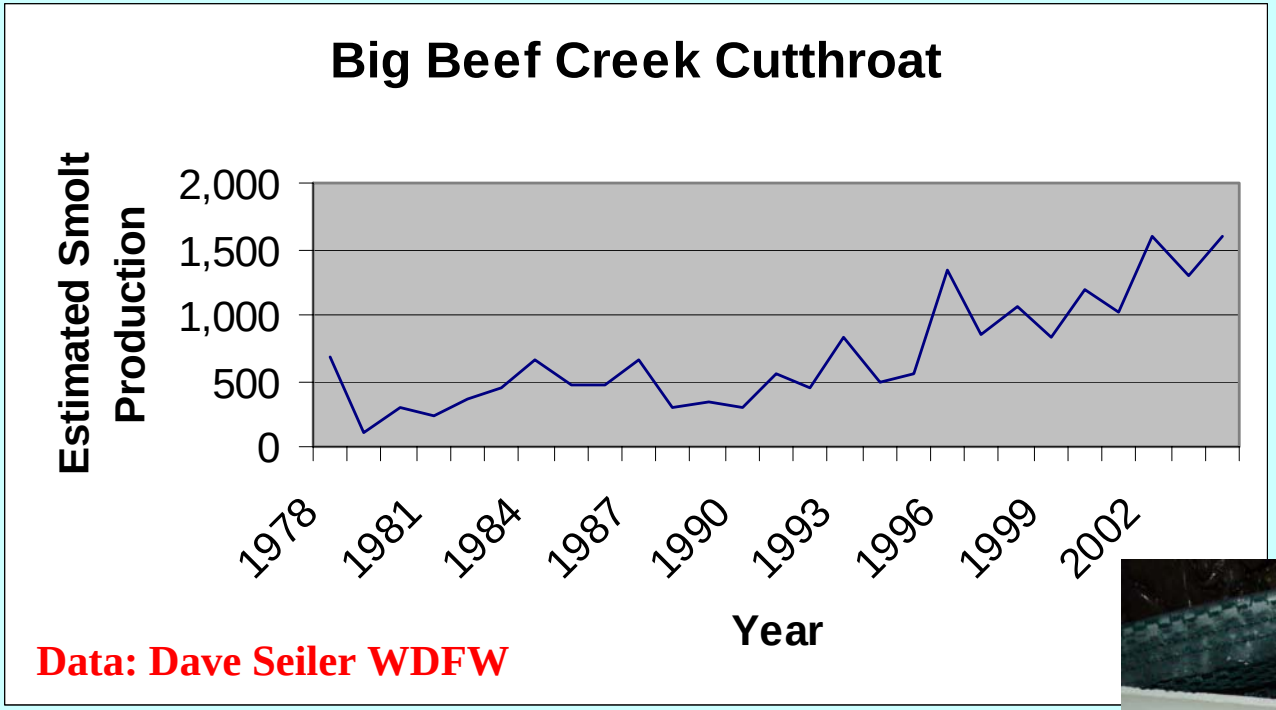


- **Puget Sound Cutthroat "ESU"**

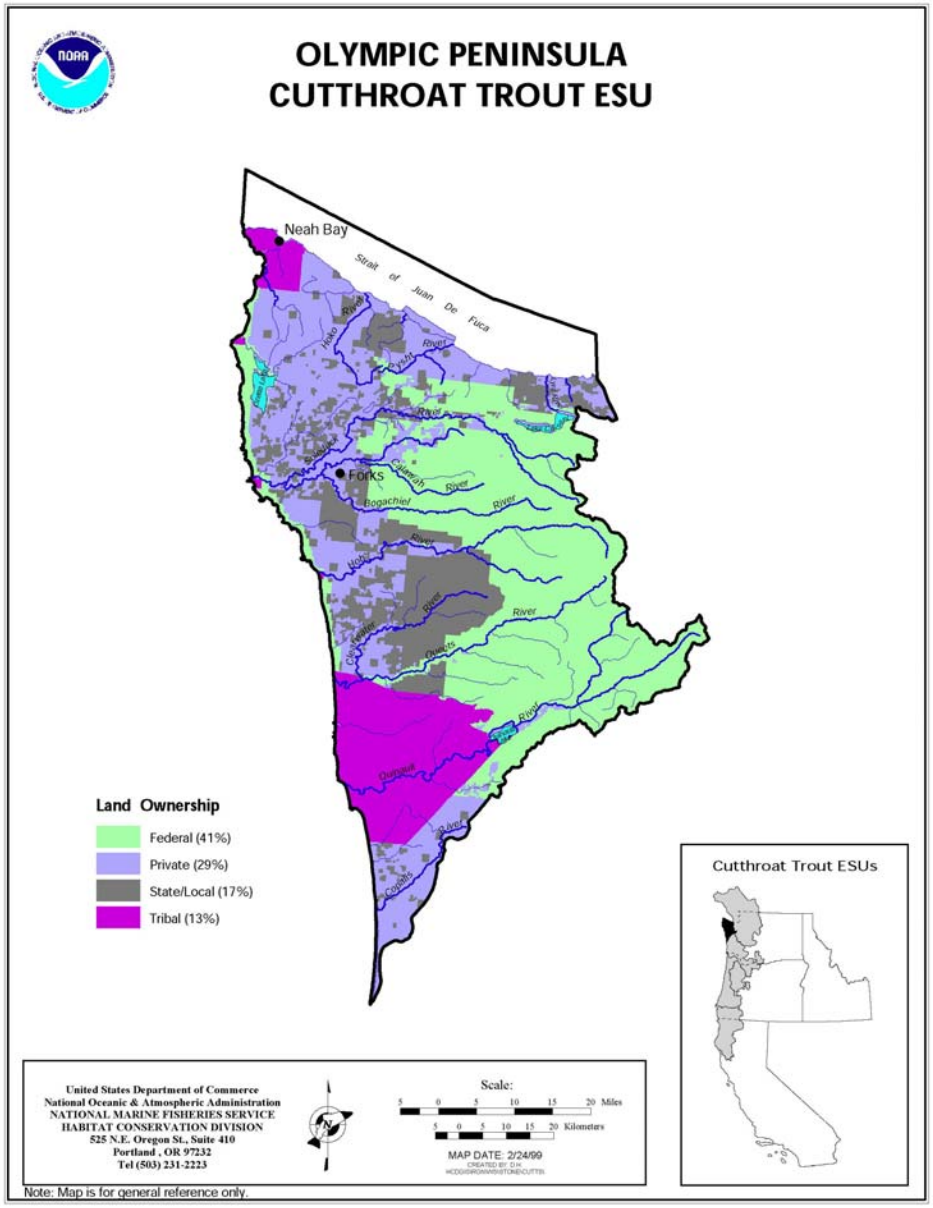
Puget Sound SaSI Stock Status

Table 3. Puget Sound and Strait of Juan de Fuca cutthroat stock complex list presented by river basin			
PUGET SOUND			
NORTH SOUND	**STOCK ORIGIN**	**PRODUCTION TYPE**	**STOCK STATUS**
Sumas	Unknown	Wild	Unknown
North Puget Sound Tribs.	Native	Wild	Unknown
Nooksack	Native	Composite	Unknown
Whatcom Creek	Unknown	Composite	Unknown
Samish	Unknown	Wild	Unknown
Skagit	Unknown	Wild	Unknown
Stillaguamish	Mixed	Composite	Healthy
Snohomish	Mixed	Composite	Unknown
SOUTH SOUND	**STOCK ORIGIN**	**PRODUCTION TYPE**	**STOCK STATUS**
Duwamish/Green	Native	Wild	Unknown
Puyallup	Native	Wild	Unknown
Nisqually	Native	Wild	Unknown
Western South Sound	Native	Wild	Unknown
HOOD CANAL	**STOCK ORIGIN**	**PRODUCTION TYPE**	**STOCK STATUS**
East Hood Canal	Native	Wild	Unknown
West Hood Canal	Native	Wild	Unknown
STRAIT OF JUAN DE FUCA	**STOCK ORIGIN**	**PRODUCTION TYPE**	**STOCK STATUS**
Eastern Strait	Native	Wild	Unknown
Mid-Strait	Native	Wild	Unknown
Western Strait	Native	Wild	Unknown

Big Beef Creek Smolt Production



Data: Dave Seiler WDFW



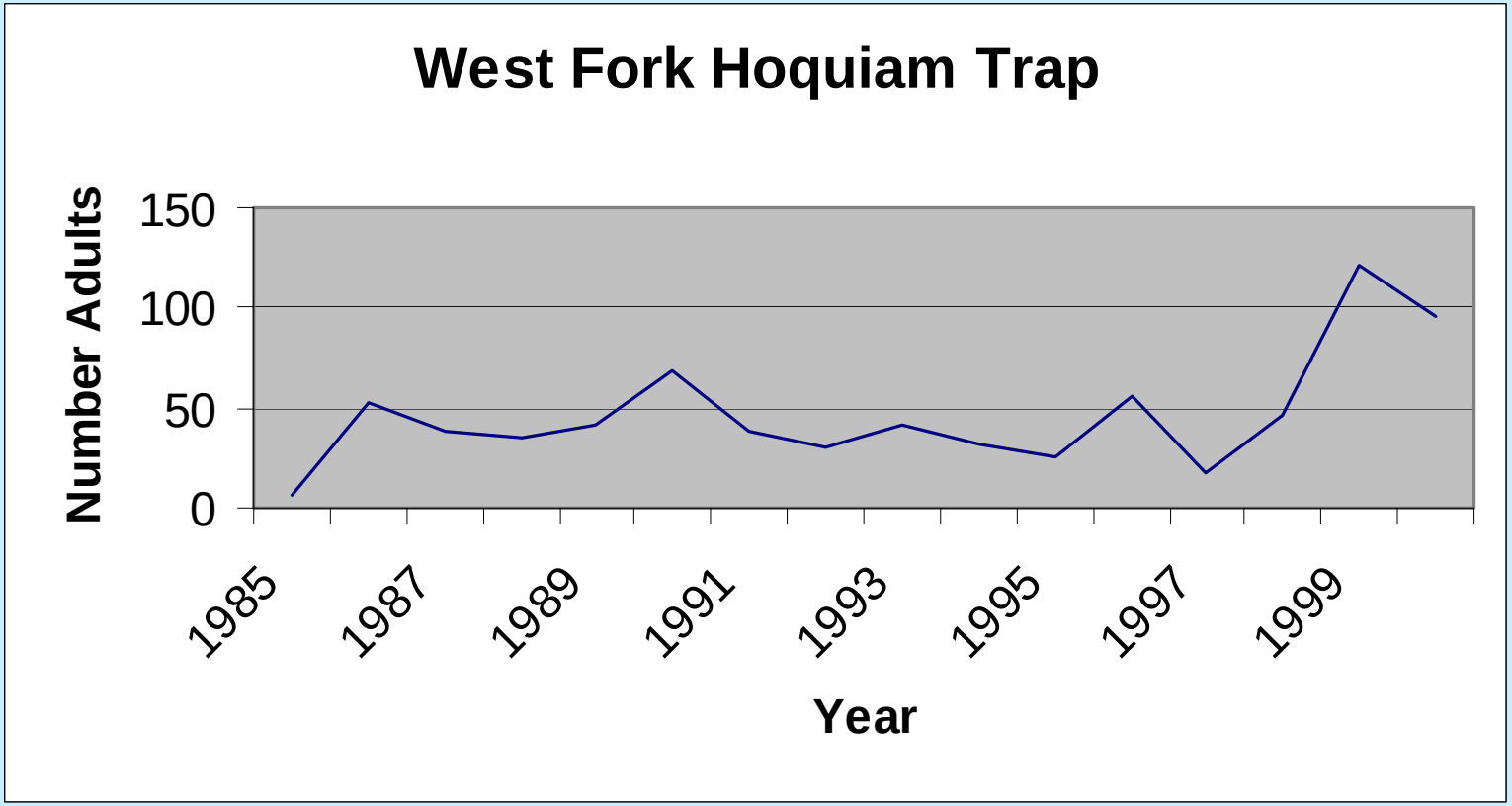
- **Olympic Peninsula Cutthroat "ESU"**

Coastal Washington SaSI Stock Status

Table 4. Coastal Washington cutthroat stock complex list presented by river basin.

WASHINGTON COAST			
NORTH COAST	**STOCK ORIGIN**	**PRODUCTION TYPE**	**STOCK STATUS**
Ozette	Native	Wild	Unknown
Quillayute	Native	Wild	Unknown
Hoh	Native	Wild	Unknown
Queets	Native	Wild	Unknown
Raft/Quinault	Native	Wild	Unknown
Moclips/Copalis	Native	Wild	Unknown
GRAYS HARBOR	**STOCK ORIGIN**	**PRODUCTION TYPE**	**STOCK STATUS**
Humptulips	Native	Wild	Unknown
Chehalis	Native	Wild	Unknown
WILLAPA BAY	**STOCK ORIGIN**	**PRODUCTION TYPE**	**STOCK STATUS**
North/Smith Cr./Cedar	Native	Wild	Unknown
Willapa	Native	Wild	Unknown
Mid-Willapa Bay	Native	Wild	Unknown
Naselle/Bear	Native	Wild	Unknown

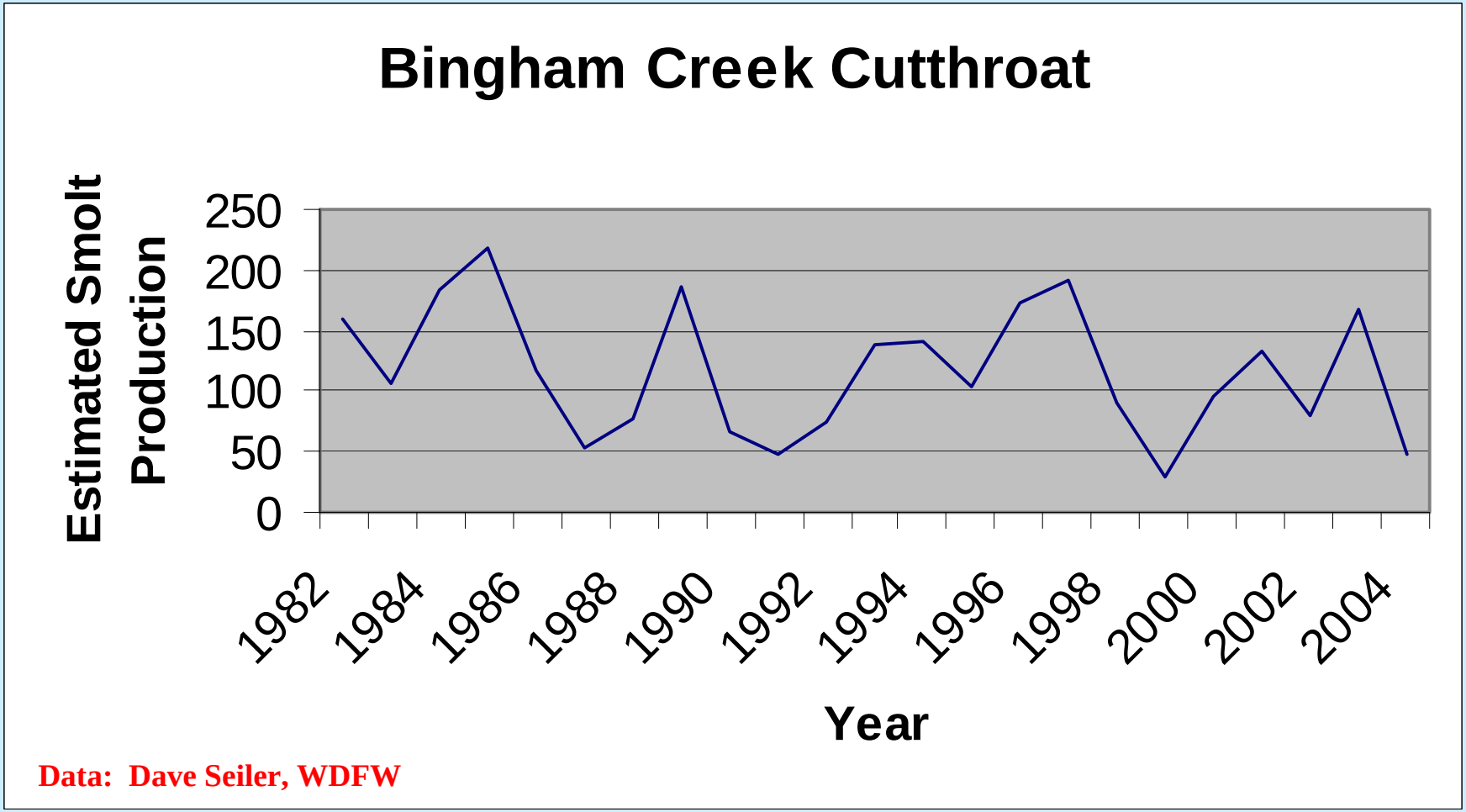
West Fork Hoquiam River
Grays Harbor



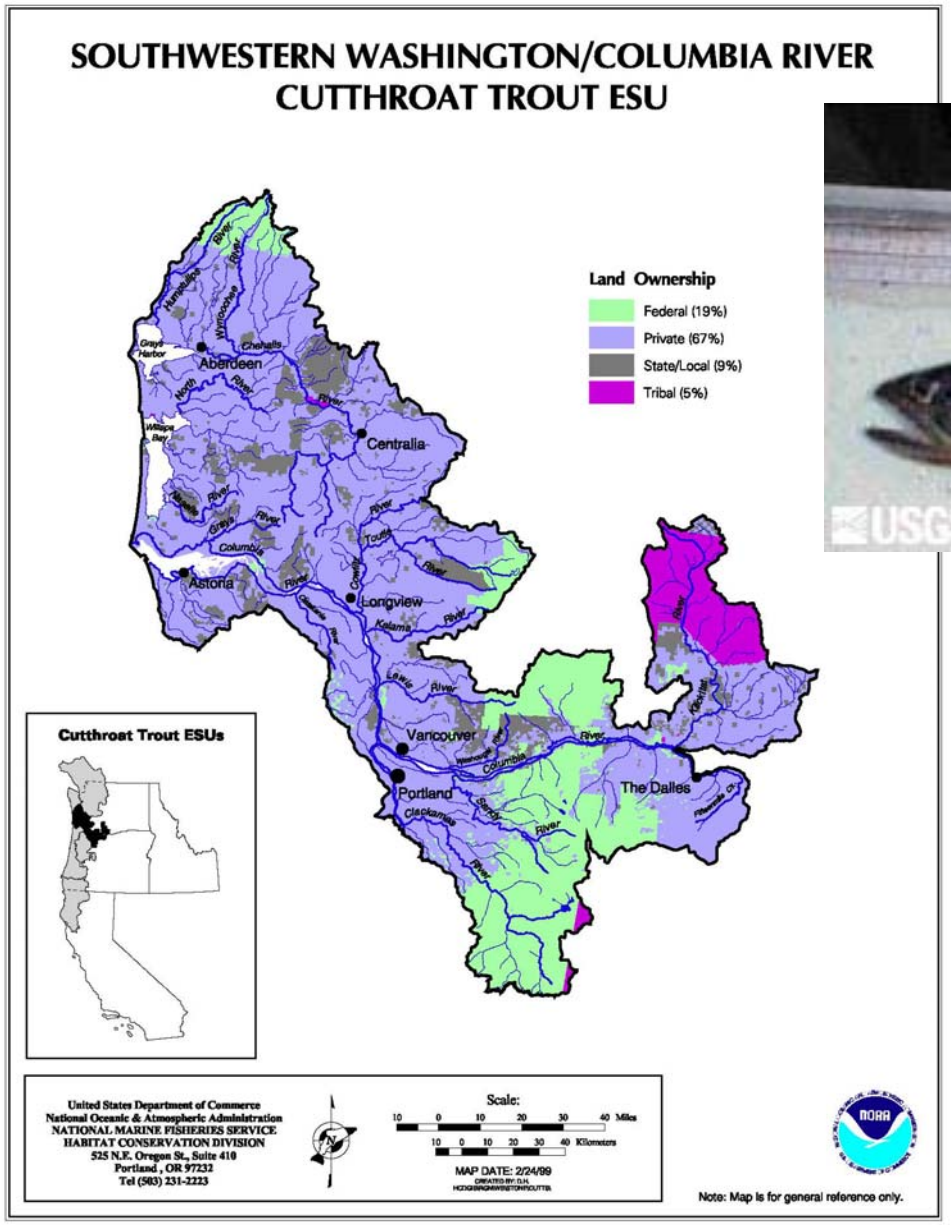
Data: Quinault Indian Nation DNR

Bingham Creek Smolt Production

East Fork Satsop River



Data: Dave Seiler, WDFW



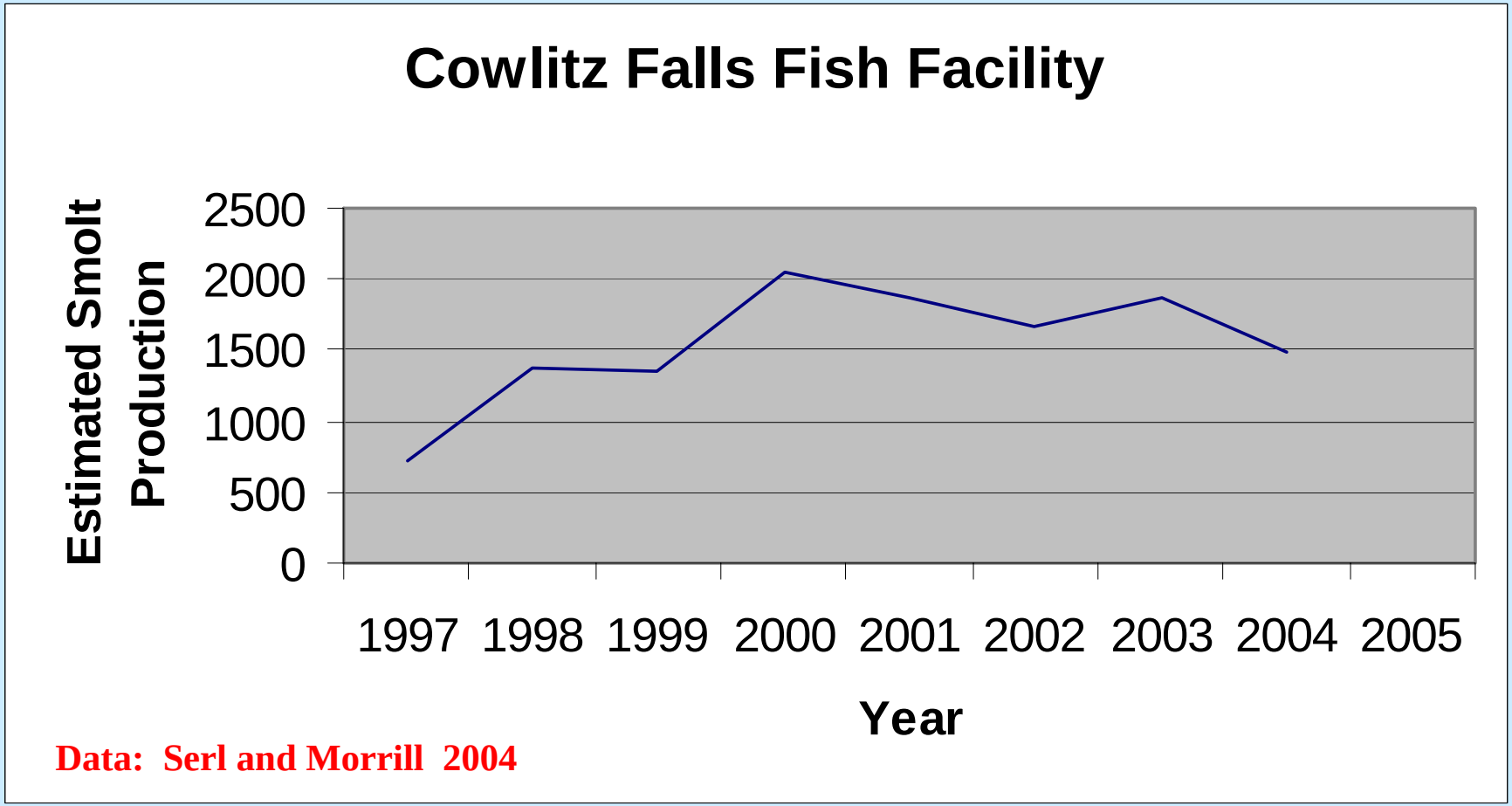
- **SW Washington/ Columbia River Cutthroat "ESU"**

Columbia River SaSI Stock Status

Table 5. Columbia River coastal cutthroat stock complex list presented by river basin.

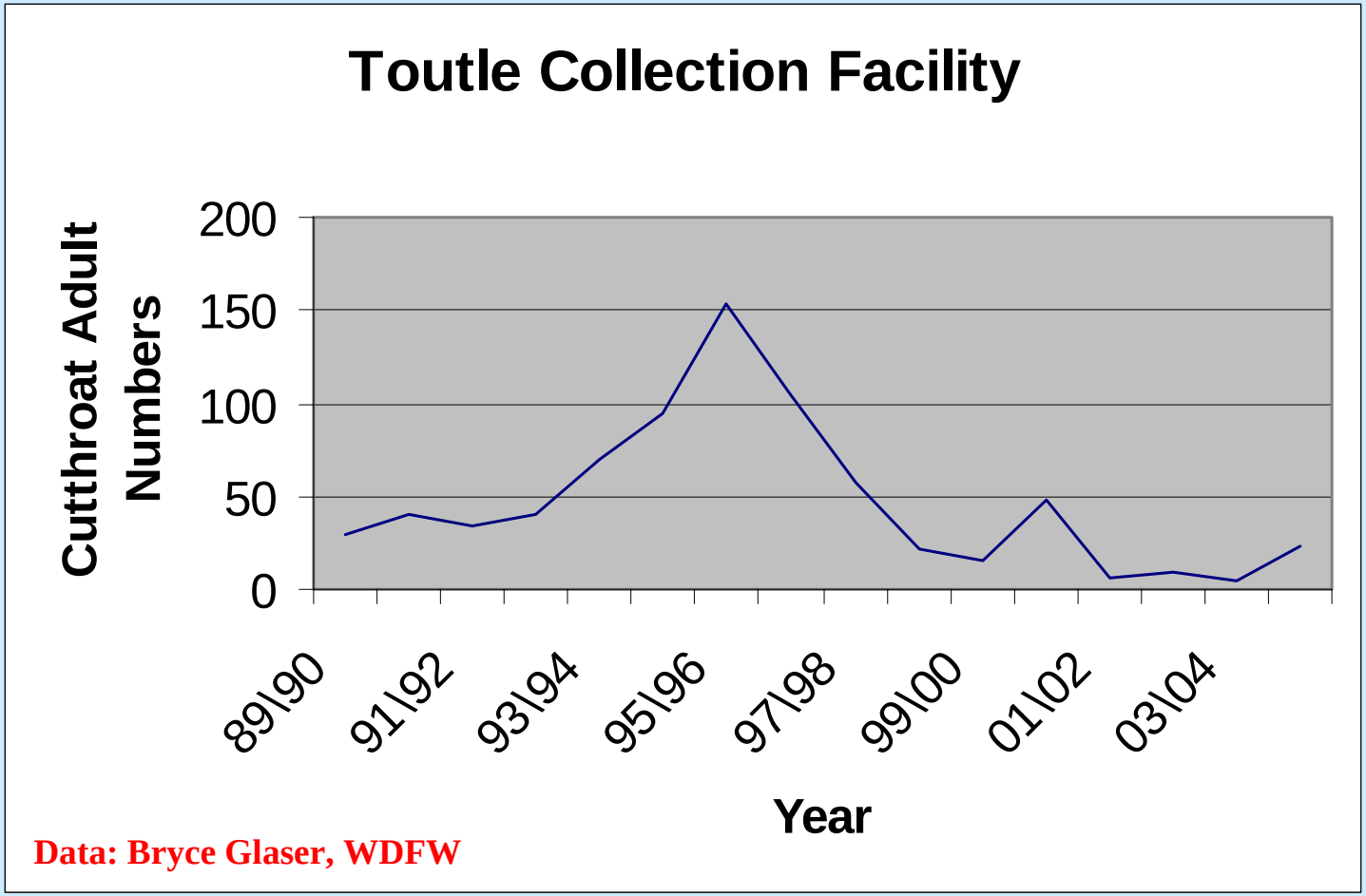
COLUMBIA RIVER			
LOWER COLUMBIA	**STOCK ORIGIN**	**PRODUCTION TYPE**	**STOCK STATUS**
Grays	Native	Wild	Depressed
Abernathy Creek/Germany Cr/ Mill Cr/Coal Cr	Native	Wild	Depressed
Elochoman/Skamokawa Cr	Native	Wild	Depressed
Cowlitz	Native	Wild	Depressed
Coweeman	Native	Wild	Depressed
Toutle	Native	Wild	Depressed
Kalama	Native	Wild	Depressed
Lewis	Native	Wild	Unknown
Salmon Cr	Native	Composite	Unknown
Washougal	Native	Composite	Unknown
Small Tribs from Lewis to Bonneville	Native	Wild	Unknown

Juvenile Cutthroat at Cowlitz Falls Fish Facility



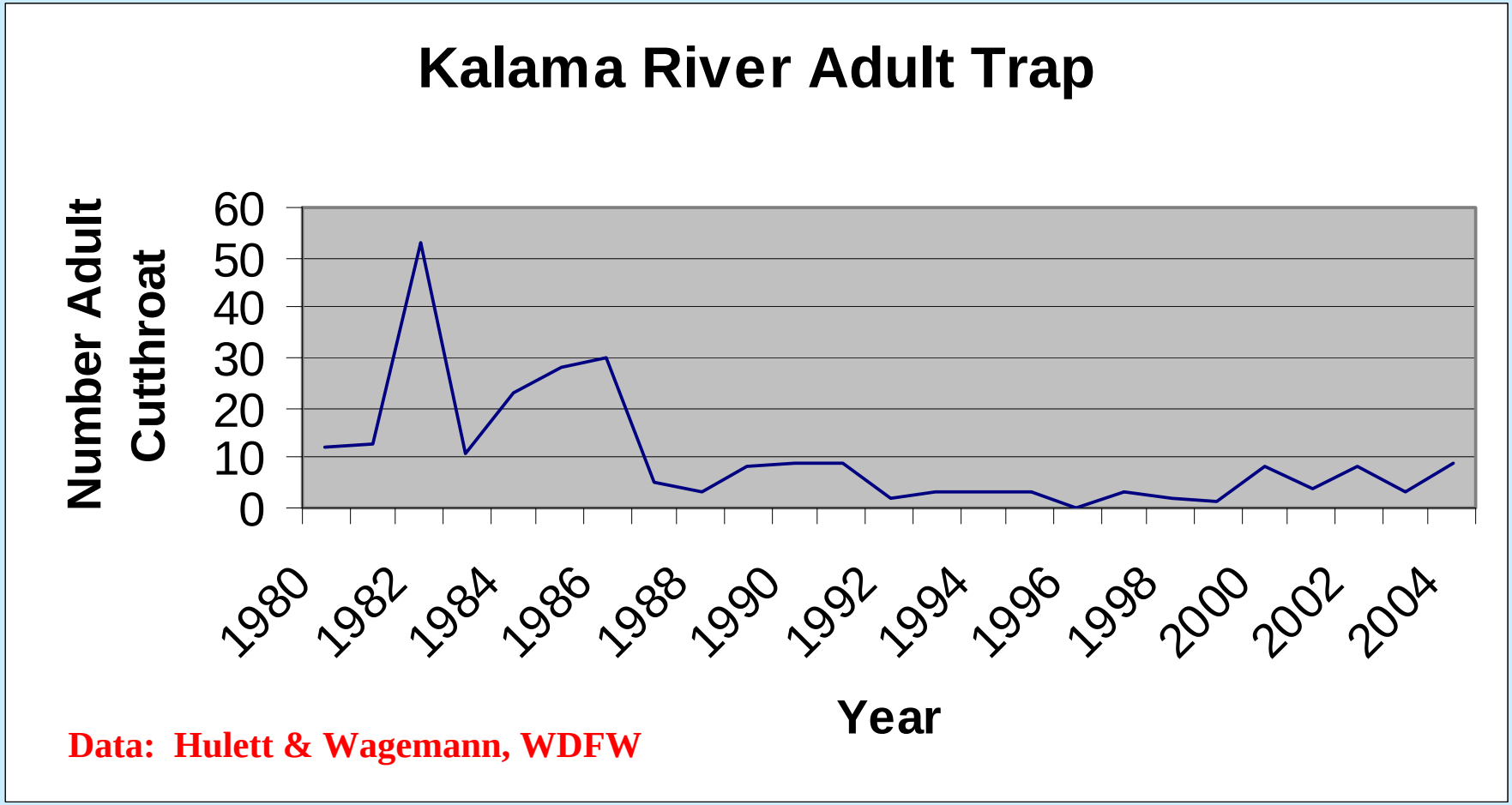
Data: Serl and Morrill 2004

Adult Cutthroat at Toutle River Trap



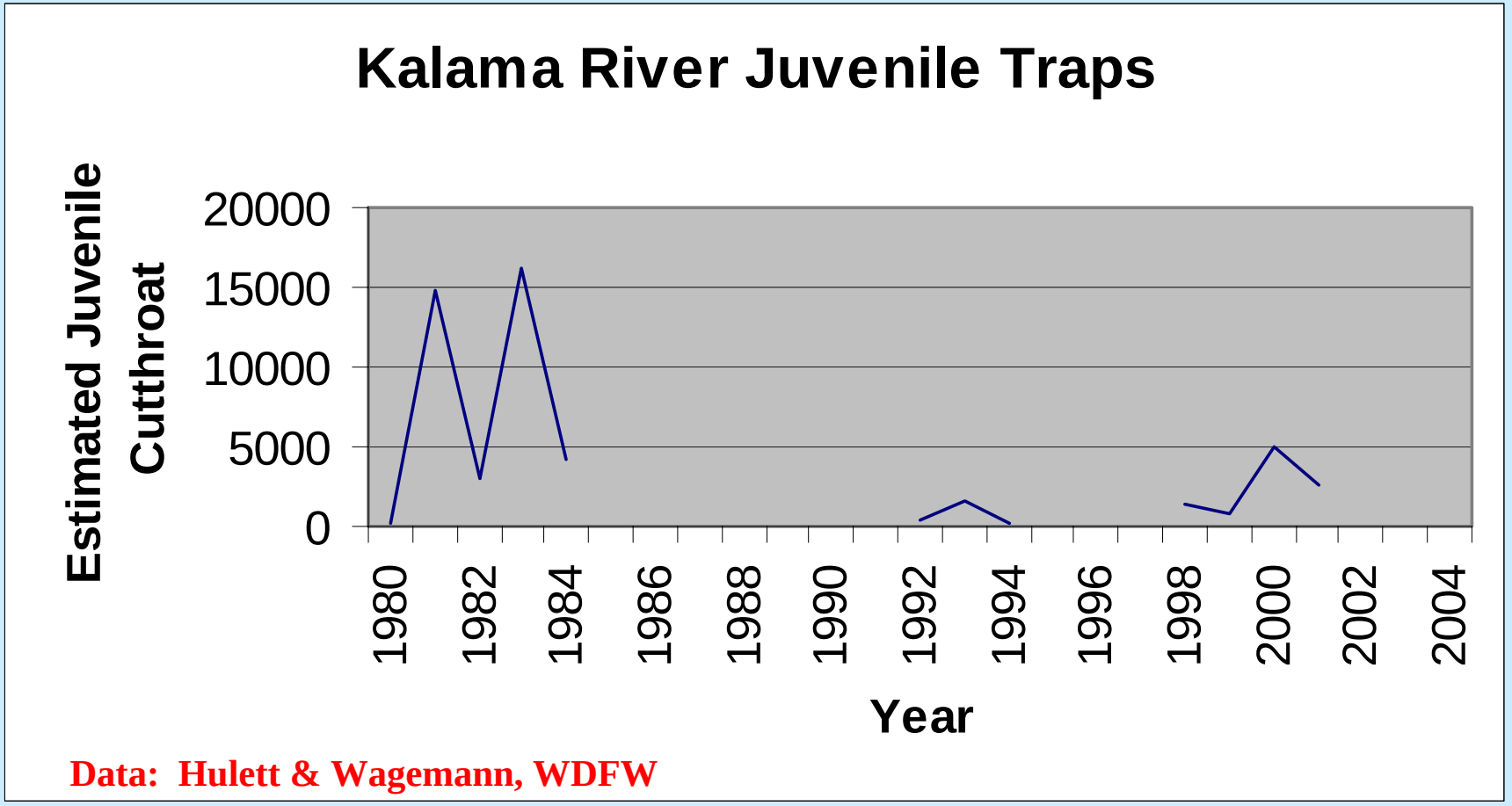
Data: Bryce Glaser, WDFW

Adult Cutthroat at Kalama River Trap



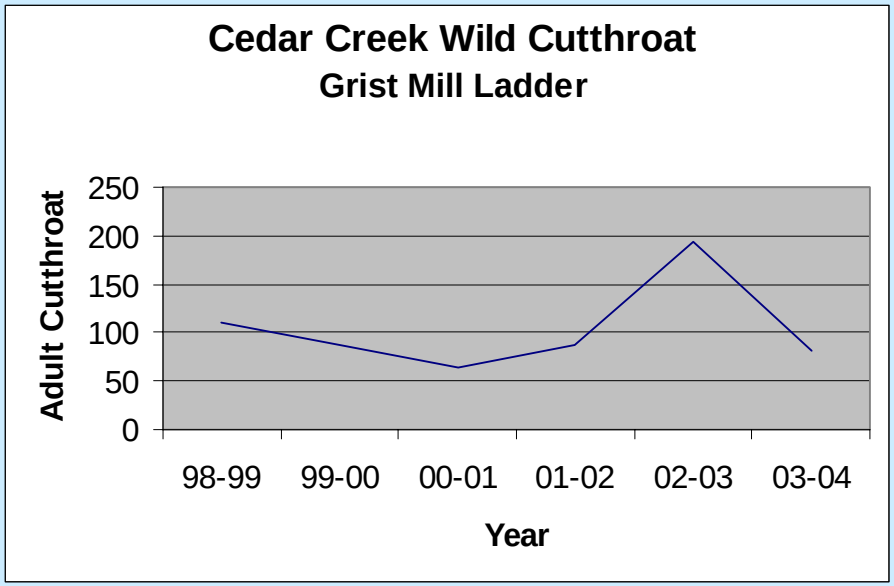
Data: Hulett & Wagemann, WDFW

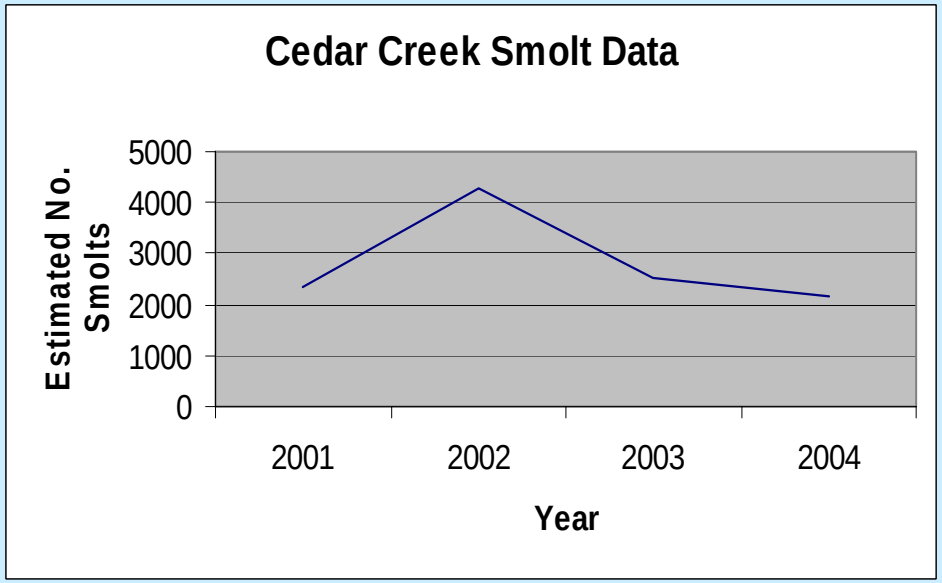
Juvenile Cutthroat at Kalama River Trap



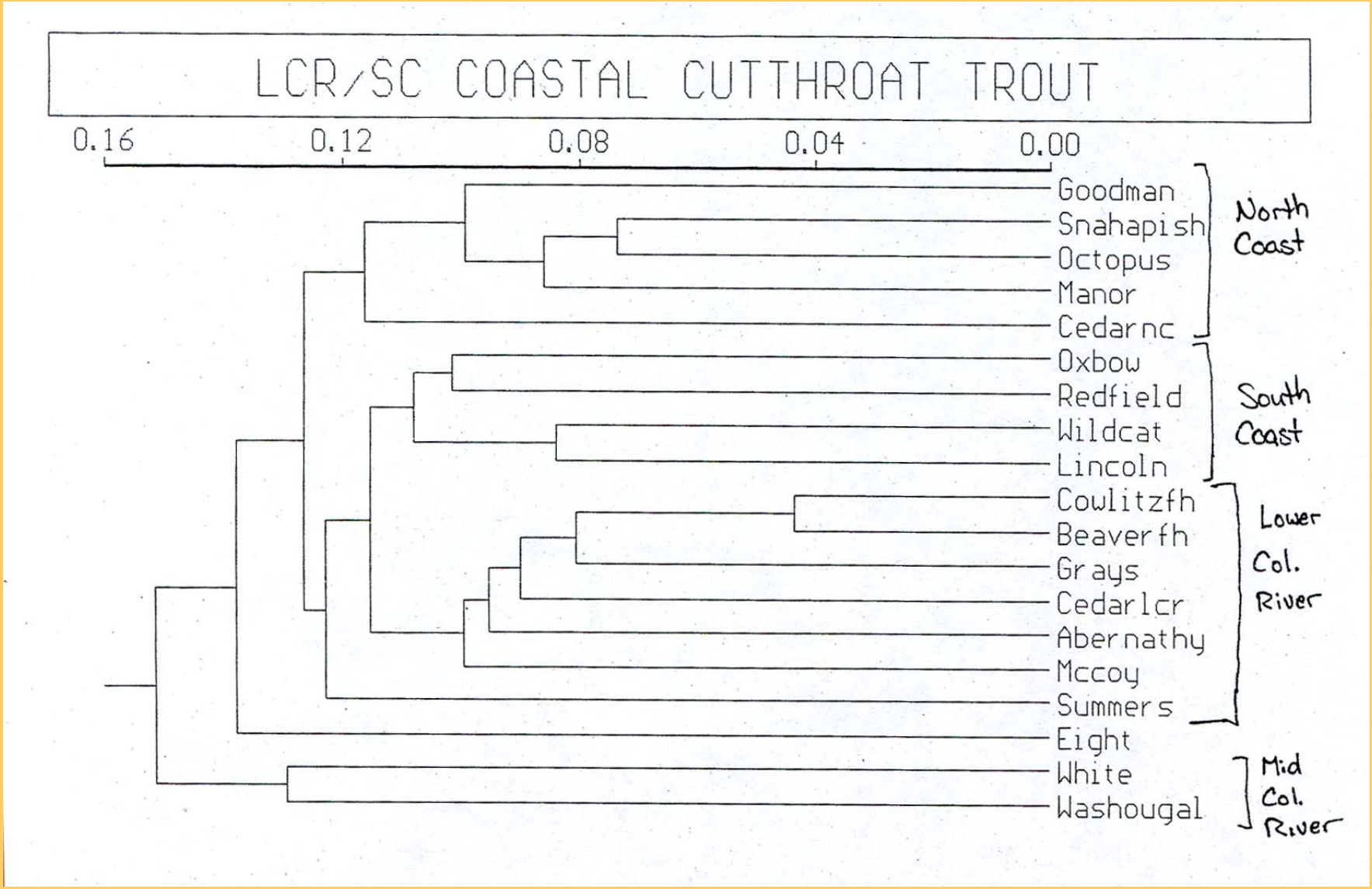
Data: Hulett & Wagemann, WDFW

Cedar Creek
Lewis River





Data: Bryce Glaser, WDFW

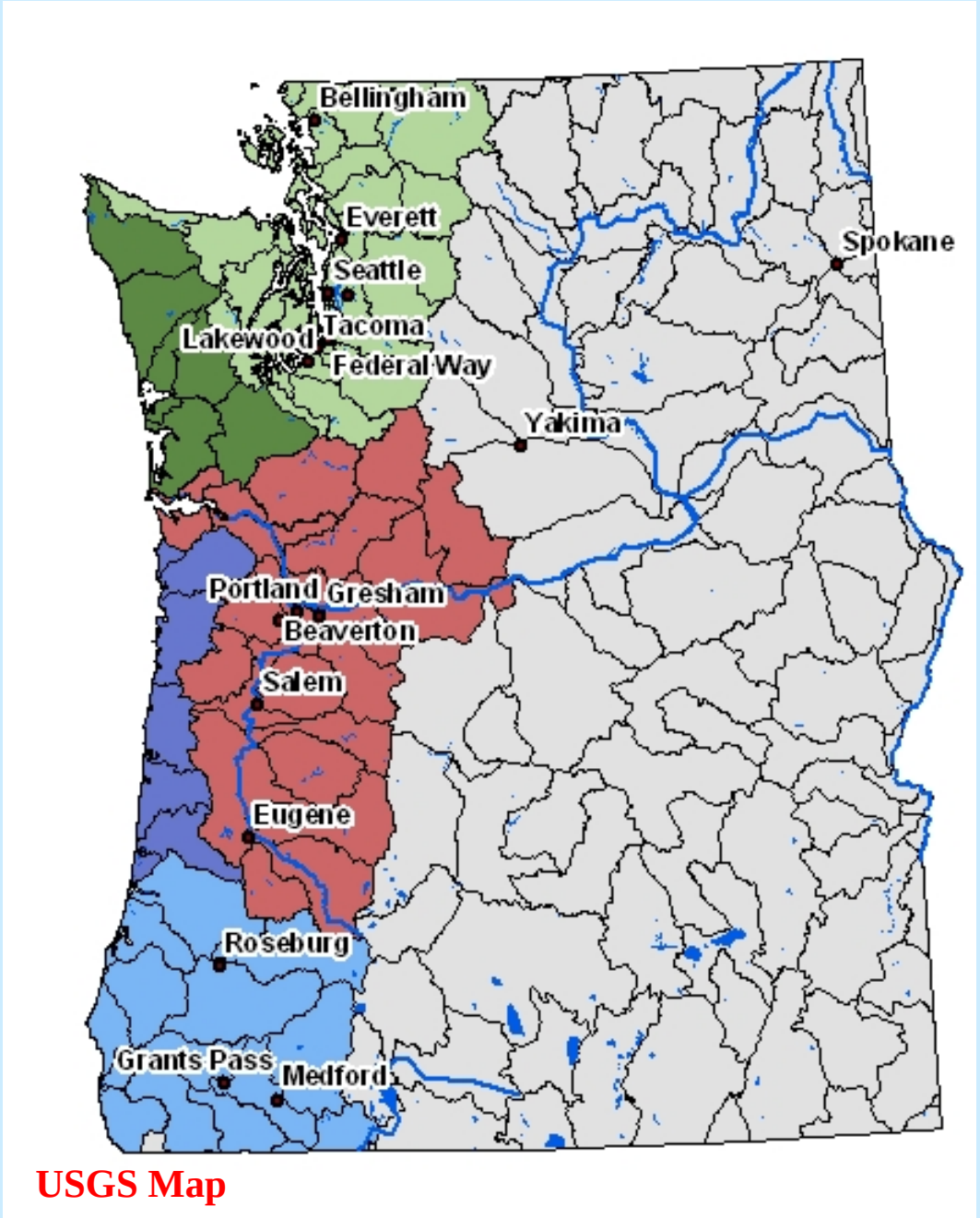


B. Baker, WDFW 2000 Allozyme Analysis

Suggest:

SW Washington Coast and Columbia River cutthroat may be in separate population segments

Mid-Columbia very distinct from lower Columbia pops.



USGS Map

Harvest Management

- **WDFW Strategy Designed to:**
- **Allow Female Trout to Spawn at least Once Prior to Becoming Available for Retention**

Statewide Trout Regulations

- **In Non-Anadromous Streams:**
- **2 Fish – Minimum 8 Inches in Length**

Statewide Trout Regulations

- **In Anadromous Streams:**
- **2 Fish – Minimum 14 Inches in Length**

Photo courtesy BC Fly Fisher Guides

Regulations – Cowlitz Hatchery Cutthroat

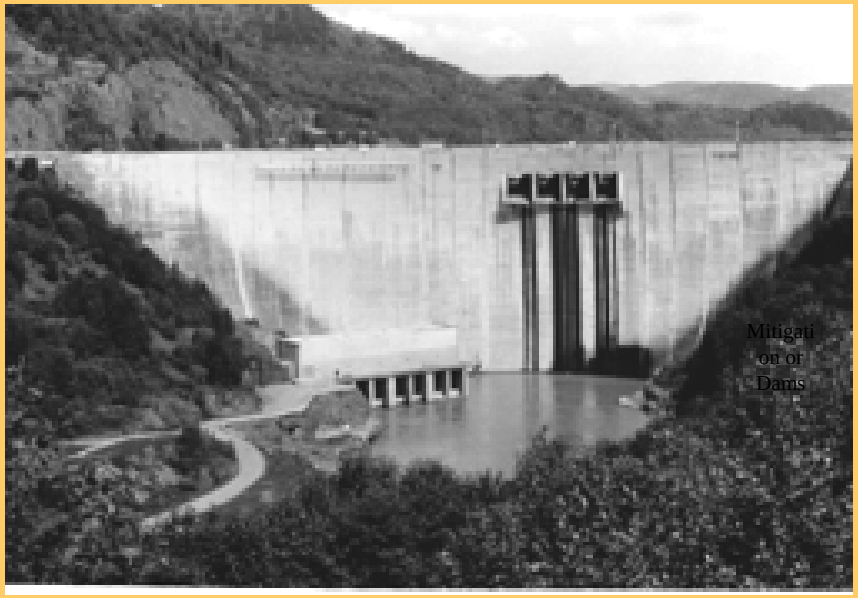
- **Up to 5 Fish – Minimum 12 Inches in Length**
- **Selective Fishery – Wild Cutthroat Release**

Photo courtesy BC Fly Fisher Guides

Statewide Trout Regulations

- **In Marine Waters:**
- **No Retention of Cutthroat Trout**

Cowlitz Trout
Hatchery



Mitigation for Loss of Habitat and Salmonid Production

Mayfield and Mossyrock Dams on the Cowlitz River

Release Goal: 160,000 Smolts
4 Fish / Pound
Return Goal: 5,000 Adults

What's in the Future?

- **Maintain Healthy Cutthroat Populations**

Photo courtesy Olga Water Users Inc.

Photo courtesy Olga Water Users Inc.

Photo courtesy Olga Water Users Inc.

What's in the Future?

- **Maintain the Recreational Fishery**
- **On Healthy Populations**

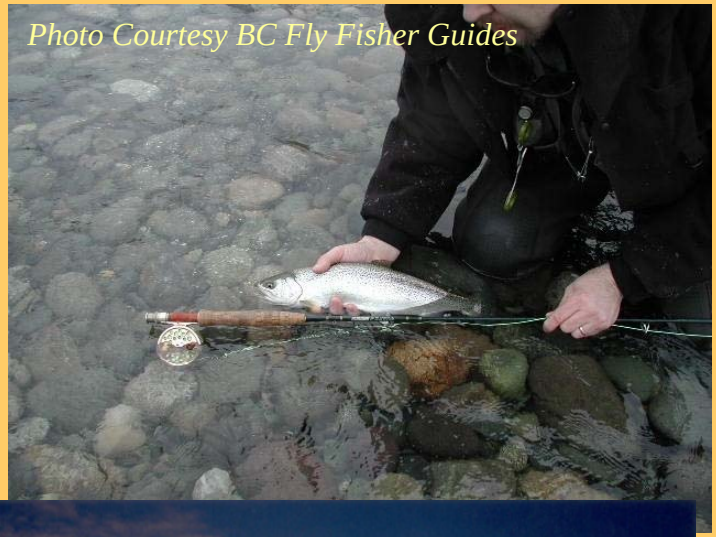


Photo Courtesy BC Fly Fisher Guides

Photo Courtesy Emerald Water Anglers, LLC

What's in the Future?

- **Necessary to Determine Status**
- **Need Basic Life-History Information**
- **Need Understanding of Hybridization, other Species Interactions**

Photo courtesy Hal Michael

Photo courtesy Anne Marshall WDFW

Photo courtesy Hal Michael

The End

With Thanks to all the Real Biologists at WDFW who provided data for this paper

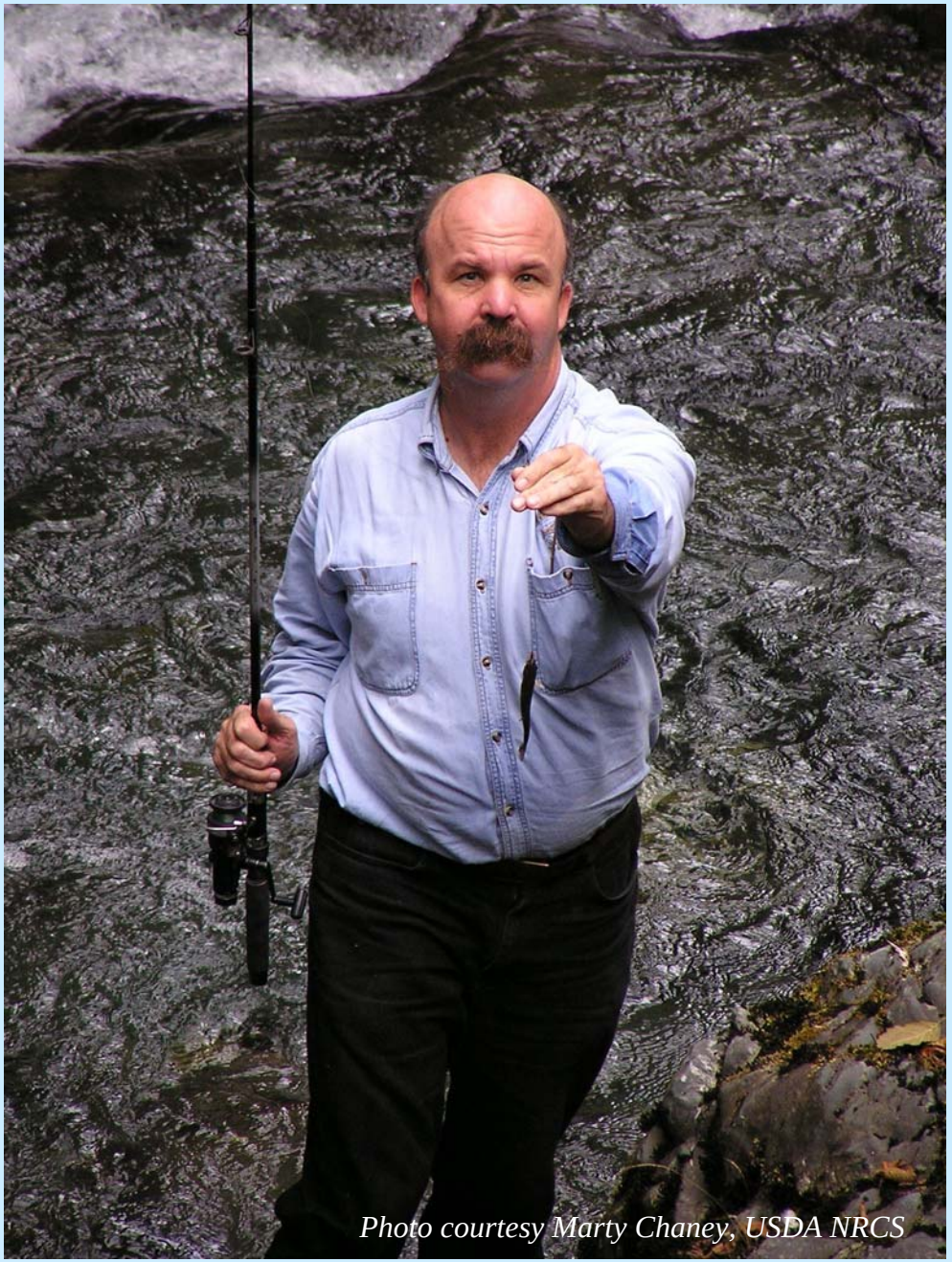


Photo courtesy Marty Chaney, USDA NRCS