HUMBOLDT COUNTY FISHERIES: THE STATE OF OUR SALMON

Analysis conducted by Ali Freedlund.
Humboldt County Salmon

- Humboldt County has the second and third largest salmon bearing basins in California
  - Majority (over 50%) of Humboldt-caught salmon originated in the Sacramento River and over 1/3 of salmon landings in Eureka were estimated to come from the Klamath
- Many of our salmon stocks are considered functionally independent
- Humboldt Count salmon are valuable in many ways

North Coast Dialogues
Fisheries Analysis
Questions Asked

- What is the current state of salmon stocks in Humboldt County?
- What are the major threats to salmon?
- What opportunities exist to protect or restore salmon fisheries?
Where are the Coho?

North Coast Dialogues
Fisheries Analysis
Chinook Numbers

Chinook in Humboldt County's Two Largest Basins

- Klamath
  - Chinook historic run: 350,000
  - 1965: 250,000
  - Current run: 150,000

- Eel River
  - Chinook historic run: 400,000
  - 1965: 300,000
  - Current run: 200,000

North Coast Dialogues
Fisheries Analysis
Other Chinook Basins

North Coast Dialogues

Fisheries Analysis
Steelhead

North Coast Dialogues
Fisheries Analysis
Threats to Salmon

- Degradation of Stream and Estuary Habitat
- Pollutants from storm-water runoff (pesticides, heavy metals, petroleum products, fertilizers and other agricultural wastes, etc.)
- High sediment loads
- Higher in-stream temperatures/climate change
- Ocean conditions
- Predation: High ocean mortality
- Invasive species
- Dams and major diversions
- Unmonitored small diversions
- Over fishing
- Gravel Mining
- Deforestation for development
- Fish migration barriers
Changes in Stream and Estuary Habitat

1912

North Coast Dialogues
*Fisheries Analysis*
Changes in Stream and Estuary Habitat

1944

North Coast Dialogues
Fisheries Analysis
Changes in Stream and Estuary Habitat

1993

North Coast Dialogues
Fisheries Analysis
Pollutants from storm-water runoff

- “most stream quality indicators decline when watershed impervious cover exceeds 10%, with severe degradation expected beyond 25%.”
Opportunities

- Removing the Klamath dams (and other fish migration barriers)
- Returning critical water to the Eel
- Monitoring other water diversions to ensure enough water for fish
- Ensuring essential habitat in estuaries/wetlands
- Incorporating storm-water filtration systems, green design materials and riparian setbacks in development designs.
- Continue to treat sediment sources and minimize impacts to salmon from agriculture, gravel mining and forest management.
Watershed Restoration

- Between 1995 and 2002, Humboldt County generated more than $65 million for restoration.
- 2002 alone generated more than 300 new restoration jobs in the public, private and tribal sectors.
Conclusions

- The more we can protect our forested landscape from development, the better for salmon survival.
- The more we can maintain or improve on water quality and quantity, the better for salmon survival.
- The more we design water infiltration systems and use low impact green materials in construction, the better for salmon survival.
- Klamath and Eel river dams are major impediments to recovering fisheries.
- The more we provide high-quality habitat (riparian setbacks and wetlands protections), the better for salmon survival.