

# Russian River Salmonids

## *Overview/Life History/Current Status*

by  
**Richard Macedo**

Northern Region  
Department of Fish and Game





# Scope.....

- Focus on Salmonids
- Species Overview
- Life Histories
- Timing



# Many Potential Impacts

- Water Diversion
- Dams/Bridges other Barriers
- Erosion/Sedimentation
- Channel Excavation
- Poaching
- Loss of Riparian Habitat
- Pollution



# CDFG is Invested.....

- Habitat Restoration
- Fish Hatcheries
- Enforcement
- Research
- Education
- Trustee Agency



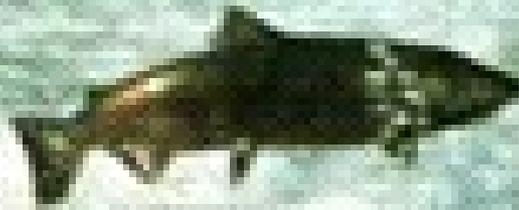


# Context.....



# Russian River Salmonids

- Chinook Salmon
- Coho Salmon
- Steelhead



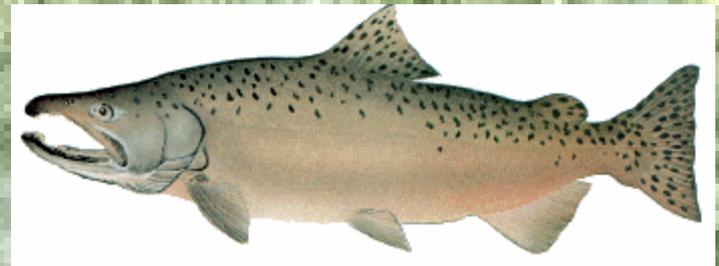


# Other Species.....



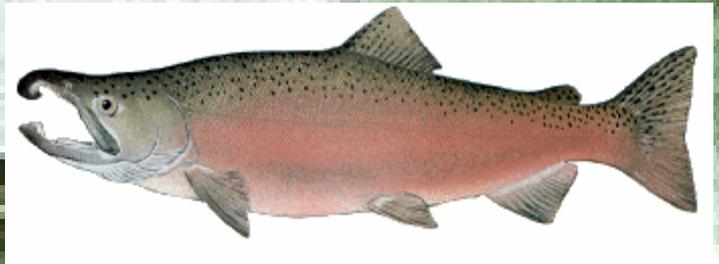
# Russian River Salmonids

- Chinook Salmon



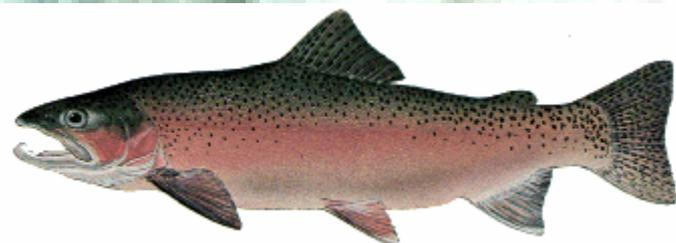
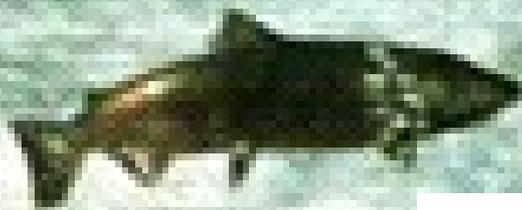
# Russian River Salmonids

- Coho Salmon



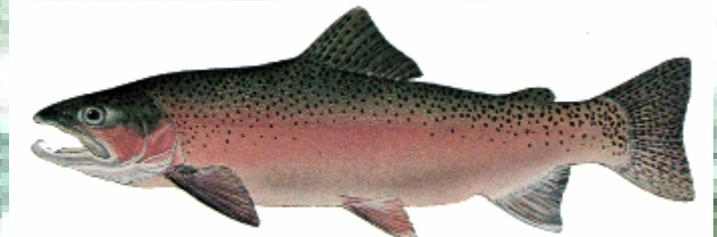
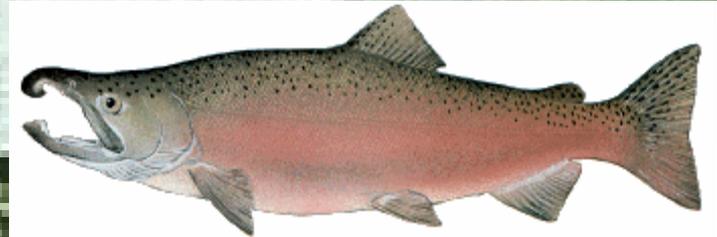
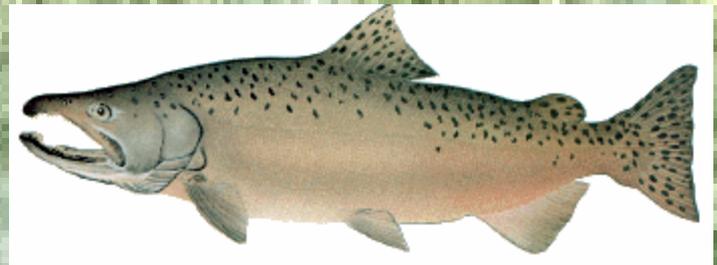
# Russian River Salmonids

- **Steelhead**



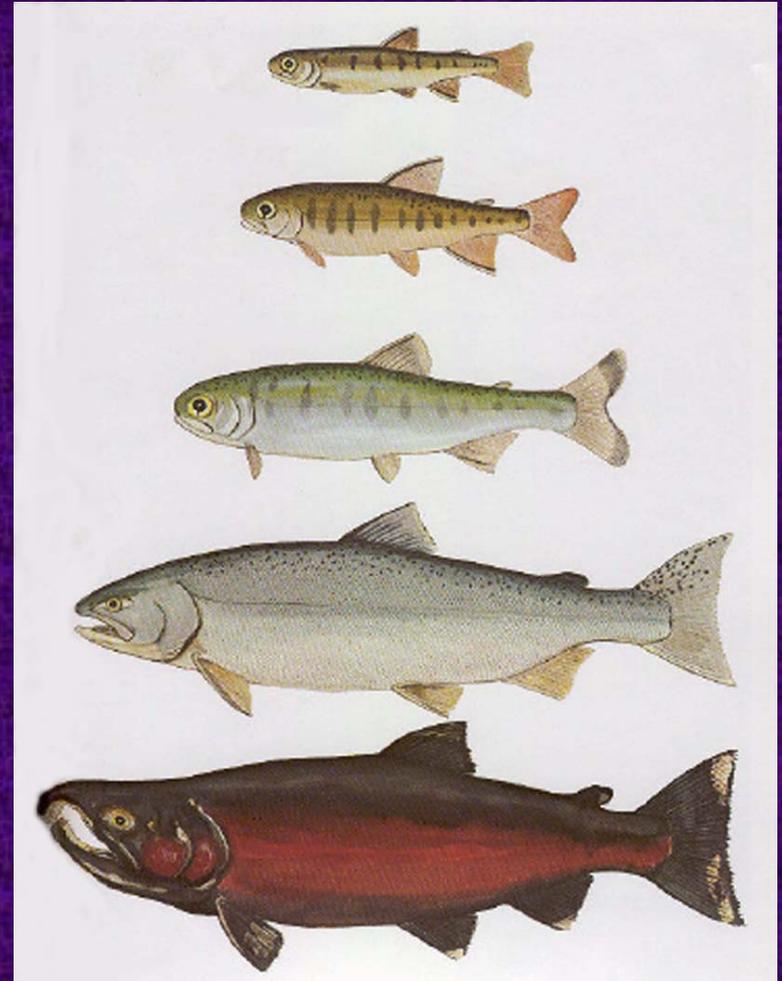
# Russian River Salmonids

- Chinook Salmon
- Coho Salmon
- Steelhead



# Salmonid Life History

- Adult Migration
- Spawning
- Egg Incubation
- Emergence/Fry
- Juvenile Rearing
- Out-migration (smolt)



# Adult Migration

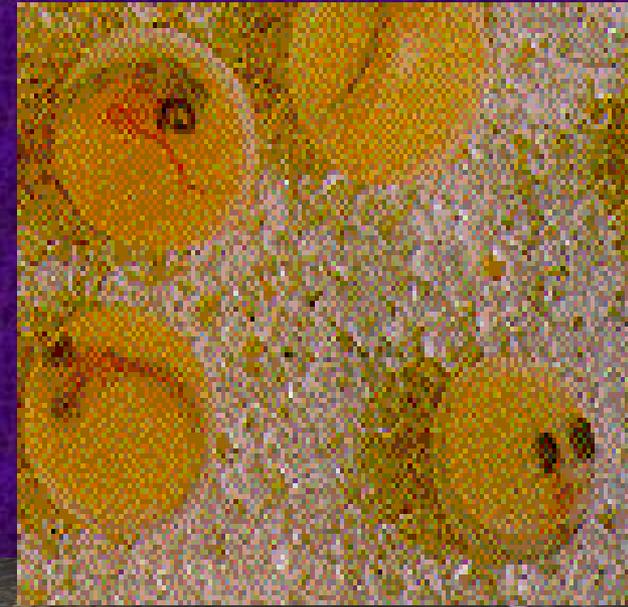


# Spawning

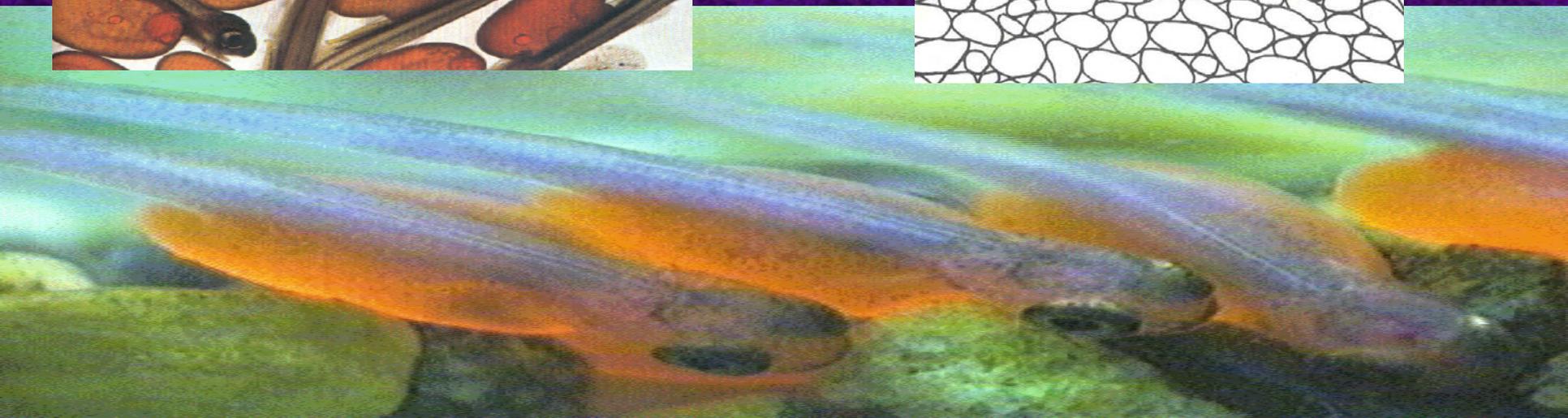
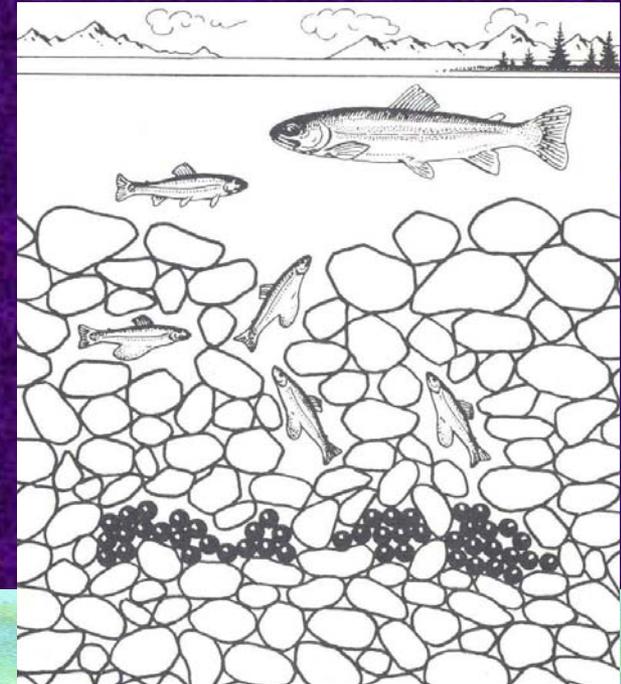




# Egg Incubation

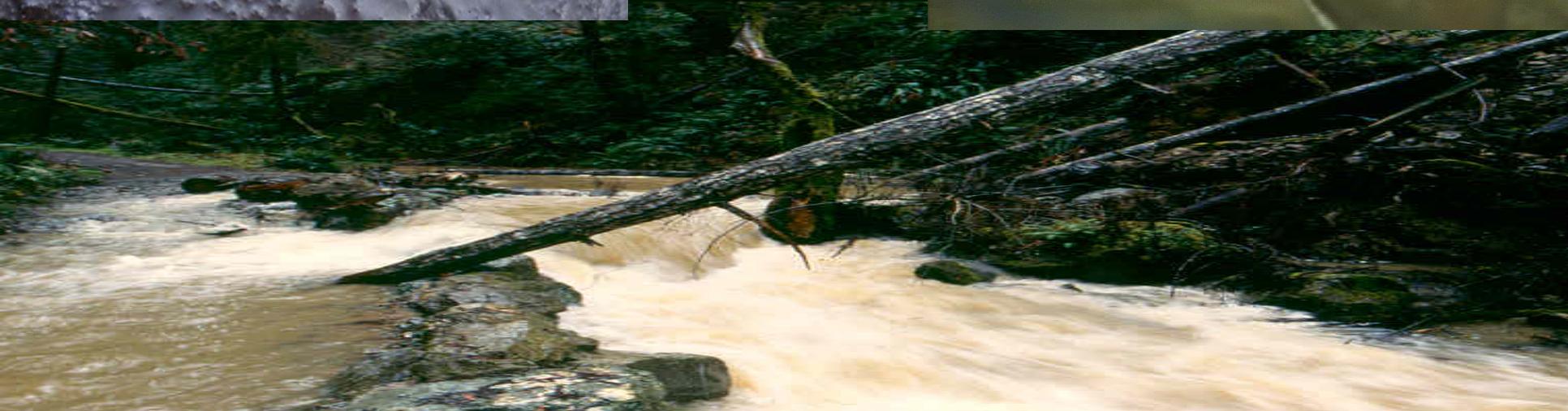


# Emergence/Fry





# Juvenile Rearing



# Out-migration





# Timing.....

- Adult Migration
- Spawning
- Egg Incubation
- Emergence/Fry
- Juvenile Rearing
- Out-migration (smolt)





# Chinook, Coho, Steelhead Life History Stages and Timing California Coastal Watersheds

<b>Juvenile Rearing</b>	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
<b>Out-Migration</b>	White	Shaded	Shaded	Shaded	Shaded	White	White	White	White	White	White	White
<b>Emergence/ Fry</b>	Shaded	Shaded	Shaded	Shaded	Shaded	White	White	White	White	White	White	White
<b>Egg Incubation</b>	Shaded	Shaded	Shaded	Shaded	Shaded	White	White	White	White	White	Shaded	Shaded
<b>Spawning</b>	Shaded	Shaded	Shaded	Shaded	White	White	White	White	White	White	Shaded	Shaded
<b>Adult Migration</b>	Shaded	Shaded	Shaded	Shaded	Shaded	White	White	White	Shaded	Shaded	Shaded	Shaded
	<b>Jan.</b>	<b>Feb.</b>	<b>Mar.</b>	<b>Apr.</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug.</b>	<b>Sept.</b>	<b>Oct</b>	<b>Nov.</b>	<b>Dec.</b>



# Potential Risks.....

- Adult Migration
- Spawning
- Egg Incubation
- Emergence/Fry
- Juvenile Rearing
- Out-migration (smolt)



# March through May Period



# Potential Risks.....

- Adult Migration
- Spawning
- Egg Incubation
- Emergence/Fry
- Juvenile Rearing
- Out-migration (smolt)



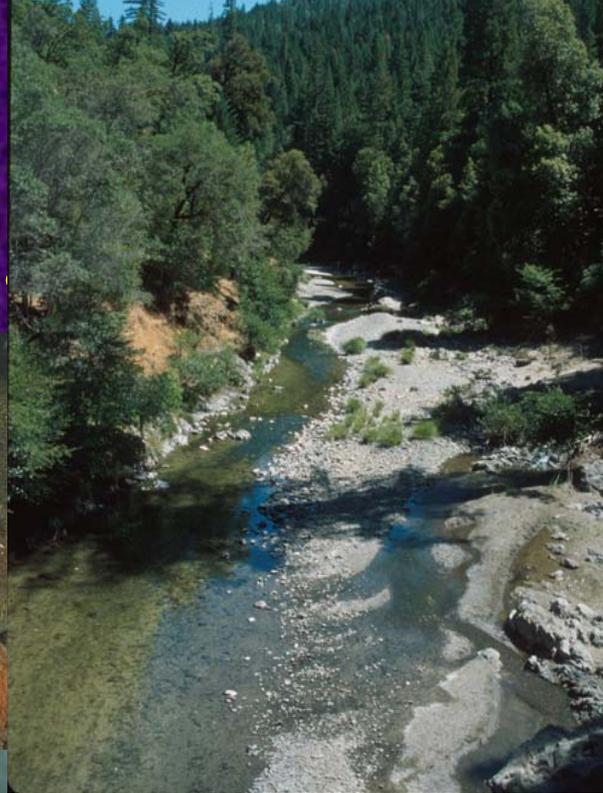
# Potential Risks.....

- Adult Migration
- Spawning
- Egg Incubation
- Emergence/Fry
- Juvenile Rearing
- Out-migration



# Potential Risks..

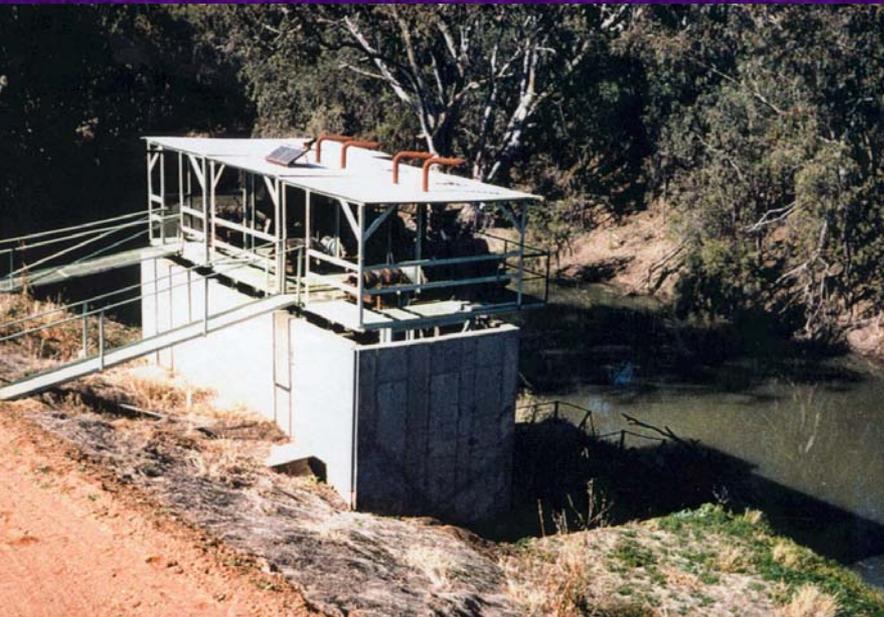
- Adult Migration
- Spawning
- Egg Incubation
- Emergence/Fry
- Juvenile Rearing
- Out-migration (smolt)





# Minimize Risk.....

- *Understand Life History Patterns*
- *Avoid or minimize impacts during critical periods*





# Chinook, Coho, Steelhead Life History Stages and Timing California Coastal Watersheds

<b>Juvenile Rearing</b>	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
<b>Out-Migration</b>	White	Shaded	Shaded	Shaded	Shaded	White	White	White	White	White	White	White
<b>Emergence/ Fry</b>	Shaded	Shaded	Shaded	Shaded	Shaded	White	White	White	White	White	White	White
<b>Egg Incubation</b>	Shaded	Shaded	Shaded	Shaded	Shaded	White	White	White	White	White	Shaded	Shaded
<b>Spawning</b>	Shaded	Shaded	Shaded	Shaded	White	White	White	White	White	White	Shaded	Shaded
<b>Adult Migration</b>	Shaded	Shaded	Shaded	Shaded	Shaded	White	White	White	Shaded	Shaded	Shaded	Shaded
	<b>Jan.</b>	<b>Feb.</b>	<b>Mar.</b>	<b>Apr.</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug.</b>	<b>Sept.</b>	<b>Oct</b>	<b>Nov.</b>	<b>Dec.</b>



# Summary.....

- Focus on Salmonids
- Species Overview
- Life Histories
- Timing

NEXT.....