

A GUIDE TO YOUR

# Chum Salmon Field Trip

At McLane Creek Nature Trail



NAME:



## Stream Team

EDUCATE • PROTECT • RESTORE

Olympia • Lacey • Tumwater • Thurston County

[www.streamteam.info](http://www.streamteam.info)

# STATION 1 : Spawning Salmon

## Trail Etiquette

Chum salmon complete a migration of thousands of miles to return to McLane Creek. As they enter fresh water, they stop eating. They need all of their stored energy to swim upstream and spawn. Following these rules will allow more chum to successfully reproduce.

- **Stay out of the stream and off the gravel bars.** Fragile salmon eggs incubate in streams and even under gravel bars during low winter flows. One footstep could destroy hundreds of eggs.
- **Please stay on the trails and in designated viewing areas.** Off-trail travel breaks down stream banks and causes erosion, which in turn may release sediment that can smother salmon eggs.
- **Approach the stream quietly and slowly.** Sudden movements, loud noises and rock throwing will disturb salmon.

From 2000 to 2007, an average of 7,300 salmon returned to spawn at McLane Creek each year. The average weight of a chum salmon is \_\_\_\_ lbs. 72% of the weight of a salmon is water (not nutrients). The remaining weight is comprised of nutrients. On average, how many lbs of nutrients were returned to McLane Creek each year?

Annual Average: \_\_\_\_\_

## Conclusions:

What evidences of spawning behavior did you observe (refer to chart on page 3)?

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Does the evidence you collected support or refute the claim?

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# What are the chum doing in McLane Creek?

Record your observations here!

**CLAIM: The adult chum salmon in McLane Creek are in the process of spawning.**

<b>SPAWNING BEHAVIOR</b>	<b>WHAT DOES IT MEAN?</b>	<b>OBSERVED? (TALLY)</b>
<b>Holding</b>	Chum is resting before it moves upstream to eat.	
<b>Aggression</b> Biting, bumping, T-display	♀ chum defending her spawning territory.  ♂ chum may be chasing other ♂ away from the female he intends to spawn with.	
<b>Crossover</b> ♂ swims over to the ♀ and rests next to her	Signals that ♂ is ready to spawn.	
<b>Quivering</b> ♂ vibrating and shaking in the water	Most likely signaling ♂ is ready to spawn.	
<b>Guarding</b> ♀ protects her redd	After spawning, ♀ will protect her redd.	
<b>Spawning</b> ♂ and ♀ quivering with gaping mouths	♀ is depositing her eggs in the red, and ♂ is fertilizing them.	

# STATION **2**: Wetlands

WETLAND PLANT SPECIES NAME	OBSERVED (TALLY)

What evidence did you find to suggest the presence of a wetland?



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What are two ways in which a wetland benefits salmon?

1. \_\_\_\_\_

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2. \_\_\_\_\_

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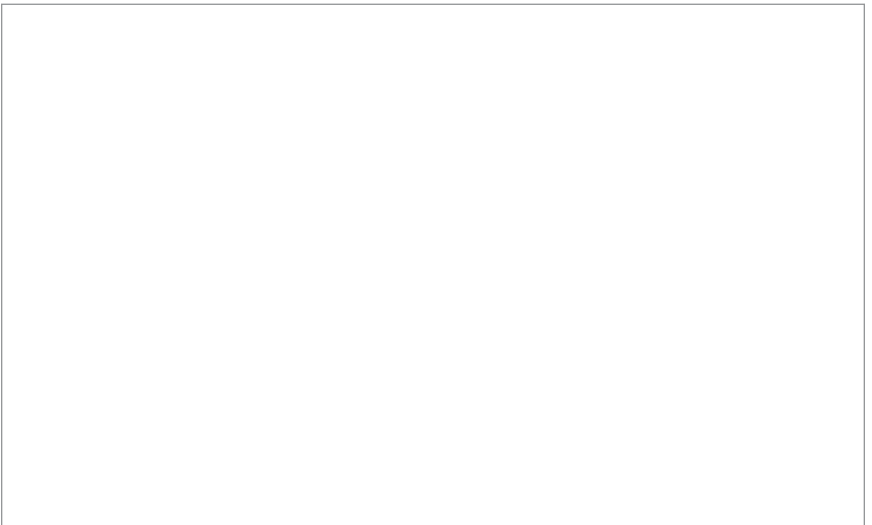
## STATION **3** : Forest Ecology

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Choose a nurse log/stump to observe. Draw and label at least 4 living organisms on your stump or log.



Observe the forest floor and understory. What can you see that might soak up rainfall and runoff? Draw and label your observations.



# Reflection Questions

Draw a food web which shows how energy flows through the McLane Creek ecosystem.

## Hints:

1. Start with the sun.
2. Arrows on a food web show that energy is being transferred from one organism to another. For example, when a snake consumes a mouse the snake is receiving the mouse's energy. Therefore, the arrow in a food web would point FROM the mouse TOWARD the snake showing the energy is transferred to the snake.
3. You must draw in additional organisms to complete the food web.



Based on your observations in stations 2 and 3, do you think the McLane Creek Nature Trail area produces a small quantity of stormwater or a large quantity of stormwater? Give evidence to back up your claim.

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Write one question you have based on something you learned or observed today.

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List 3 actions you can do to protect salmon in your community?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

What is one thing you liked about the field trip today?

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For more information on how you can protect local streams and salmon, go to **[www.streamteam.info](http://www.streamteam.info)**

CAPITOL STATE FOREST

# McLane Creek Nature Trail

5044 Delphi Rd SW Olympia, WA 98512



WASHINGTON STATE DEPARTMENT OF  
**Natural Resources**



**Caution**  
Boardwalk  
can be slippery,  
standing  
water may be  
present.



**How long  
is the walk?**  
Self-guided walk:  
1.1 miles (1.77 km)  
allow 1 hour  
Via old RR grade trail:  
0.6 miles (1 km)  
allow 30 minutes