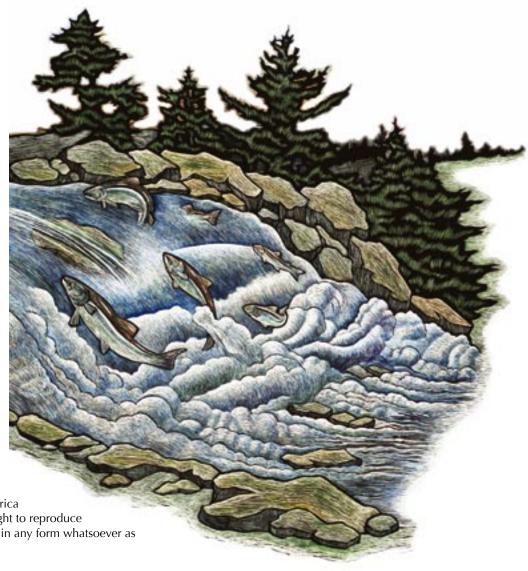
OREGON ZOO

Illahee the Salmon Taima the Bald Eagle



Introduction

Forests and streams in the Pacific Northwest are home to many animals. Each animal lives there in its own way. The stories of Illahee the Salmon and Taima the Eagle show some of the ways they each depend upon these forests and streams. You will find that the life of each is connected to the other's in the forest they share.



Produced by the Education Division Oregon Zoo 4001 SW Canyon Road Portland, OR 97221

This educational material may be copied by teachers for instructional use only.



© Oregon Zoo a department of Metro, Portland, OR June 2004

Illustration by Rick Wheeler Text by Todd Duvall Design by Doug Katagiri

Printed in the United States of America All rights reserved, including the right to reproduce this publication or portions thereof in any form whatsoever as indicated in the text.

A Rocky Start

Illahee's mother had swum against the current for weeks, driven by instinct back to her home stream. Using her powerful tail, she pushed aside gravel to create a nest of small rocks, called a redd. Using the last of her energy, she laid her eggs deep among the rocks.

> Since most of the eggs would be swept away by winter floods or eaten by birds and other fish, it was important that they be as protected as possible.

Her energy spent and mission complete, Illahee's mother died. But out of the thousands of eggs she laid that fall afternoon, a few survived including Illahee.

Small Fry in a Big River

DIDIA O)



Ever since she was just a few months old, Illahee was on the move.

From her quiet creek in Idaho, she followed the currents west. Down the stream she floated, into larger rivers, and around massive dams. One day, Illahee found herself at the mouth of the mighty Columbia.

After getting used to the salt water, she headed into the ocean.

The Long Way Home

By the time she was four, Illahee had traveled more miles than most animals do in a lifetime. Now that it is time for her to lay eggs, her instincts tell her to swim back home.

Illahee swims back up the river, up the waterfalls and streams, returning to the freshwater spawning ground where she hatched.

Migrating salmon find their way home by instinct — with scent, taste, and ocean currents all playing a part.



Keeping Cool

With a flip of her tail, Illahee maneuvered herself into a bubbling pool where she could rest and get oxygen.

Riffles and rapids in the channel made frothy-white bubbles, adding oxygen to the water.

The downed tree along the bend created a deep, calm pool for resting.

Shade from trees and shrubs along the banks keeps the water cold.

Feeding the Forest

Illahee's life ended normally, as a salmon's does, after returning home and laying her eggs. Her body floated gently along the surface of the stream.

Hundreds of salmon had washed up on the bank, just like they did every year at this time.

Eagles and other forest animals depend on this cycle of life and death to feed themselves and their young.

Spawned-out salmon leave their mark throughout the watershed, providing food for animals and enriching the soil.

Above the Treetops

From her massive nest atop a towering Douglas fir, Taima surveys the forest below.

Taima has been using the same nest for years. She uses the broken top of the lofty Douglas fir to take flight, riding thermals high into the air until she is a mere speck in the sky. Silently she soars over acres of open forest.

As soon as her mate is done adding a new layer of moss and sticks to the nest, it will be time for Taima to settle in and lay her next clutch of eggs.



Taima and her mate constantly bring food to their newly hatched chicks. At first, small bits of fish and fowl are torn into chunks and fed directly into their open bills.

Within a few weeks, each eaglet is eating nearly two pounds a day. Now, after two months, the chicks are ready to feed themselves, fighting over the food dropped into the nest.

Taima keeps watch over the nest as the young birds play tug-of-war with twigs and flop around the nest in make-believe flight.

Once their more powerful flight feathers grow out, it will be time to fly for real.

Living off the Land

Flying over the snow-dusted banks of a rushing stream, Taima spies food. A large pink-bellied salmon has washed close to the pebbly shore.

Swooping down, she wades toward the carcass, then grasps it in her sharp talons.

Even though she is an accomplished hunter, Taima gets much of her food from animals that are already dead.

Feeding the Forest

Taima is drawn to the river bank during spawning season, knowing she will be able to easily provide her hatchlings with full bellies.

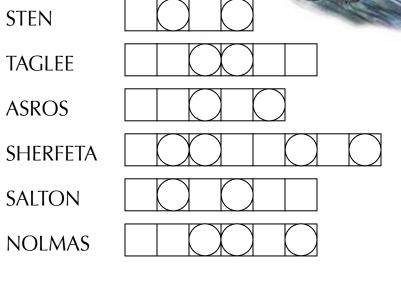
Eaglets require constant feeding, so this find will mean less work for Taima.

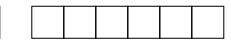
In death, salmon bring nutrients from their long stay in the ocean back to the forest, continuing the natural cycle.

Secret Eagle Message

Here's a puzzle about eagles for you to solve.

The letters of six words from Taima's story are jumbled up. First unjumble the letters and spell each word in the boxes. Then use the circled letters to write the secret message at the bottom of the page.





If you get stuck, the solution is on the back cover.

A Clean Home For Eagles and Salmon

You Can Help

All the water that flows into storm drains in a street eventually flows into nearby rivers and streams. Everything else that flows in with the water also ends up there. Some people don't know this, so they dump things they want to throw away into the storm drain. That includes things like old motor oil, paint, or even leftover garden chemicals. Needless to say, that can make the nearby streams polluted, unhealthy places for animals.

Storm drain stencils are a way to remind people that dumping chemicals in the street is a bad idea.

The stencil is placed on the street next to a storm drain and then spray-painted to leave a permanent reminder not to dump waste there.

You can organize a storm drain stenciling project in your neighborhood.

- Recruit a few friends to help with the project.
- Explore your neighborhood and find where the storm drains are located.
- Get a storm drain stencil and supplies. Sources are listed below.
- Wait for a day when the pavement is dry and then go out and stencil!

The wildlife in nearby streams will thank you!

Sources for storm drain stencils:

Portland Bureau of Environmental Services www.cleanrivers-pdx.org 503-823-7185, 503-823-5281

Washington County Clean Water Services www.cleanwaterservices.org 503-681-3643

Clackamas County Water Environment Services www.co.clackamas.or.us/wes 503-353-4561

Watershed Stewards at Washington State University, Clark County Extension http://clark.wsu.edu 360-397-6060 ext. 7703



Bibliography

Look for these books about eagles and salmon at your local library:

Come Back Salmon by Molly Cone (Sierra Club Books) Salmon Summer by Bruce MacMillan (Houghton Mifflin Company) The Bald Eagle by John Becker (Kidhaven Press) Eagle Watching by Diane Bair (Capstone Books) Eaglet's World by Evelyn White Minshull (A. Whitman)

Webliography

Here are some good web sites about eagles and salmon.

Upper Skagit Bald Eagle Festival & The Skagit River Bald Eagle Interpretive Center

"Every year thousands of people visit the Upper Skagit River Valley in Northwestern Washington state to watch one of the largest wintering bald eagle populations in the continental United States." This site features information on the annual bald eagle festival (including driving directions and map), event listings for the interpretive center, bald eagle facts, eagle viewing areas, and statistics from the annual eagle count along the Skagit River.

http://www.skagiteagle.org/

American Bald Eagle Information

Information about the national bird of the United States including description, history, vision, migration, feeding, nesting, and young. There is also background on the reintroduction program and descriptions of locations for viewing the bird. Additionally, there are poems, a history of the use of the bird as an emblem, information about eagles found in other countries, related links, photos, and more.

http://www.baldeagleinfo.com/

Pacific Northwest Salmon

Learn about the different types of Pacific salmon, their life cycle, how they are threatened, and ways you can help save them.

http://www.amrivers.org/fishwildlife/pacificsalmon.htm

The Pacific Salmon and Steelhead Coloring Book

The coloring sheets also have information about salmon. Acrobat Reader software is required to view this site. Due to the graphics, it may load slowly. http://pacific.fws.gov/publications/salmnbk.pdf

Salmon Incubation Cam

See a live picture of salmon eggs incubating! There is also a photo album that shows how the eggs develop step by step and background information about the life cycle of the salmon.

http://www.pugetsound.org/kids/salmon/default.html