



The Alaska Wild Salmon Teacher's Guide

A resource for teaching classroom and field-based salmon education that meets state performance standards

What is it?

The purpose of the Alaska Wild Salmon Teacher's Guide is to provide an accessible method of instruction on the ecology of Alaska salmon and salmon streams. This Guide supplies all the information, lesson plans, student worksheets, and assessments needed to teach about Alaska salmon. Field equipment will also be supplied for several communities.

Who is it for?

This Guide was created by teachers for teachers. The 237-page Guide provides curriculum resources that meet Alaska State Performance Standards and Grade Level Expectations for math, science, writing, and cultural requirements. The lesson plans are primarily for middle school teachers. The Guide also includes information and resources for elementary teachers. The field activities described in the Guide are appropriate for all ages, including high school.

Background

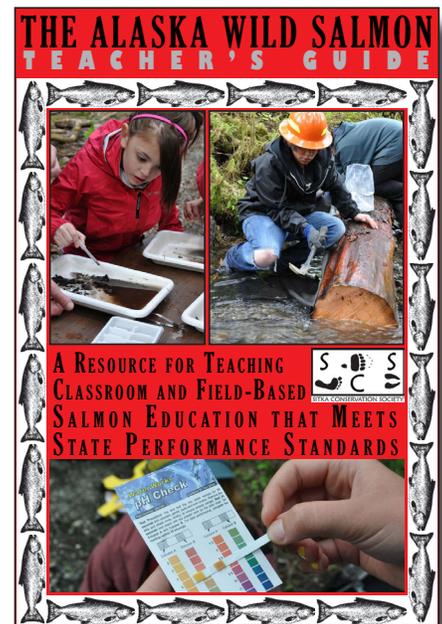
This Guide was inspired by the successful partnership between the Sitka School District and the US Forest Service. Each year over eighty 7th graders in Sitka participate in a week of classroom and field-based salmon and stream ecology education. The Sitka Conservation Society designed this Guide with a grant from the Alaska Sustainable Salmon Fund to share these lessons with other Southeast Alaska communities. The goals of this Guide are to:

1. Increase the number of Alaska students learning about salmon and stream ecology
2. Foster or enhance the relationships between teachers and local resource management professionals
3. Inspire or enhance a lifelong commitment of stewardship of our salmon resource

For more information or to obtain a free Guide contact the Sitka Conservation Society:

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The Alaska Wild Salmon Teacher's Guide
Lesson 3: Everything Interacts
Brenda Papoi

Where are we going?
Time: Two 45 minute classes or one 90 minute class
Group Size: Whole group
Where: Classroom
Focus: Introduces students to the concept of ecological relationships

Lesson 3: Everything Interacts
Background:
This lesson will address the third ecosystem component: **Everything Interacts** by focusing on symbiosis and ecological relationships. Students will investigate the many ways that species that live in close proximity to each other might interact in an ecosystem, whether via competition or predation or through an ongoing symbiotic relationship such as mutualism, commensalism, or parasitism. Students will also explore how interactions are vital parts of a balanced and stable ecosystem.

Materials:

- Interactions Flipchart/Power Point
- Interactions Student Note Sheet
- Ecological Relationships Student Organizer
- Ecological Relationships Video Clips 1-3
- Computer Projector
- Student science notebooks

Objectives:
Students will be able to:

1. Define and describe the possible ecological relationships between species that coexist in an ecosystem
2. Classify specific interspecies relationships as mutualistic, commensal, or parasitic
3. Understand that ecological relationships evolved over time and are integral to maintaining the balance and stability of ecosystems
4. Name factors that can throw ecosystems out of balance
5. Describe human actions that have contributed to ecosystem imbalance and species decline
6. Suggest remedial actions to ameliorate human-caused imbalances in ecological relationships

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Stream Team Field Equipment

1. Alaska Stream Team Field Guide and data sheets
2. Streamkeeper's Field Guide
3. clipboard with data sheets
4. rite-in-rain notebook
5. dissolved oxygen test kit
6. disposable latex gloves
7. pH kit
8. empty plastic bottle for stream flow
9. digital thermometer
10. compass
11. bucket
12. aquatic invertebrate net
13. tape measure
14. sorting (ice-cube) trays
15. pipettes
16. forceps
17. hand lens
18. sampling tray
19. 120cm turbidity tube and "stadia rod"
20. backpack
21. waders
22. stopwatch

not shown: shoulder-length gloves

Above: sample pages from the Guide