

Fall Quarter: The Behavior and Ecology of Pacific Salmon and Trout

Larry Dominguez: Salmon and Aquatic Ecologist (e-mail) eldominguez@comcast.net

Fall Quarter 2005 4 qh

Wednesday Evening 6-10 pm (first three weeks) Saturday 9-1 (7 weeks)

Lab 1 Room 1040

Class requirements: Attendance, field journal, term paper (individual or group), and final exam

Textbook: The Behavior and Ecology of Pacific Salmon and Trout, by Thomas P. Quinn. ISBN 0-295-98437

Other Reading: Reading material packet available in class. Includes up to 25 technical articles.

Date	Topic	Preparation
Wed Sept. 28	General introduction and class requirements, Watershed context, fluvial geomorphology, salmonid life history, winter ecology overview.	Chapters 1-3
Wed. Oct 5	Coho, chinook, steelhead, life history behavior and management	Chapters 4-6
Wed. Oct 12	Sockeye salmon life history, behavior, research updates. guest speaker, Tom Quinn.	
Sat. Oct 15	Field trip to Kennedy Creek: forest and fish interactions, pre-spawning environment characterization.	Chapters 7-8
Sat. Oct 22	Class lecture: Guest speaker Steve Shroder WA Department of Fish and Wildlife Chum salmon, Chinook salmon	
Sat. Oct 29	Field trip to Kennedy Creek, chum salmon spawning behavior	Chapters 9-12
Sat. Nov 5	Class Lecture 10:30 - 1:00 pm	Chapters 13-14
Sat. Nov 12	Field trip to Satsop River: chinook and chum spawning.	
Sat. Nov 19	Field trip to Kennedy Creek: intensive spawner behavior observations	Draft due for early review of term papers
Sat. Nov 26	No Class – Thanksgiving Break	Chapters 15 - 17
Sat. Dec 3	Field trip to Quinault River and tributaries for sockeye spawning	
Wed Dec 7	Class review, term papers due, turn in field notebook	Chapters 18-19
Sat. Dec. 10	Final exam	
Dec 12-16	Evaluation Week	

Evaluation Basis: Assignments	40%
Term Paper	30%
Final Exam	30%

Assignments include field exercises, field trip write-ups, notebook maintenance, calculations using spreadsheets.

Term paper is 6-8 pages of double spaced lines and 12-point font lettering, not including reference page. Use a minimum of 10 peer-reviewed journal articles or other technically reviewed publications.

Contact: Most effective communication is e-mail: eldominguez@comcast.net

Special expenses: Up to \$ 80.00 for textbook and articles, and additional \$75.00 for field trips and supplies

This class will cover the life histories of seven Pacific salmon species with special emphasis on chum, sockeye, coho and steelhead. Discussion will focus on spawning and winter rearing habitats, and effective winter habitat restoration. This class will be taught in lectures and predominantly on field trips in coastal, Puget Sound, and West Cascade streams.

The Behavior and Ecology of Pacific Salmon

Credits: 4

Days & Times: Wed, 6–10p (weeks 1-3), and Sat, 9a-1p, (weeks 4-10)

Special Expenses: \$200 for field gear and field trips

Prerequisites: Graduate standing and two quarters of college-level biology. Junior standing or above with faculty signature.

Enrollment: 20

CRN: 10441 (GR); 10454 (UG)

There are seven indigenous salmon and trout of the genus *Oncorhynchus* in Washington. Their habitat extends from small inland streams to the vast North Pacific Ocean. Within this geographic range, the salmon exhibit a variety of life history patterns while making vital contributions to wildlife and landscape functions that maintain certain Pacific Northwest ecosystems. In the fall, many northwest streams become filled with spawning salmon. With an emphasis on field observations and literature review, this program will examine the complex behaviorisms of spawning and the freshwater and estuarine rearing ecology of juvenile salmon. Other topics include adult migrations and homing, habitat requirements, historical perspectives of land management and commercial fisheries and their effects on salmon populations, and freshwater ecology as it relates to salmon productivity.

Fall and Winter Salmonid Ecology
By: Larry Dominguez
Salmon and Aquatic Ecologist

Report and Article Titles

Pacific Salmon Spawner Escapement Goals for the Skagit River Watershed as Determined by Nutrient Cycling Considerations

Pacific Salmon Carcasses: Essential Contributions of Nutrients and Energy for Aquatic and Terrestrial Ecosystems

Preliminary Evaluation of the Use of Nitrogen Isotope Ratios to Establish Escapement Levels for Pacific Salmon.