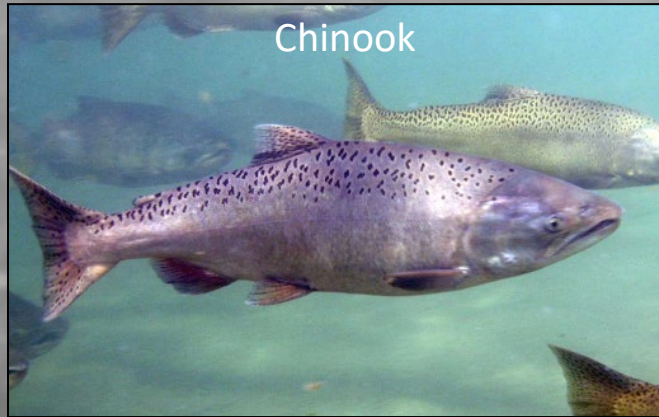


New Insights into the Management and Ecology of Anadromous Cutthroat Trout

Greg Shimek, James P. Losee and others



Project Background: Anadromous Salmon and Trout of Coastal United States



Anadromous Cutthroat Trout



Why Study “Searun” Cutthroat?

1. Lack of scientific information associated with Coastal Cutthroat Trout

- Non-Commercial Species
- No recognized conservation concern
- Difficult to study (small bodied, diverse life history)
- Not a salmon, not a trout.

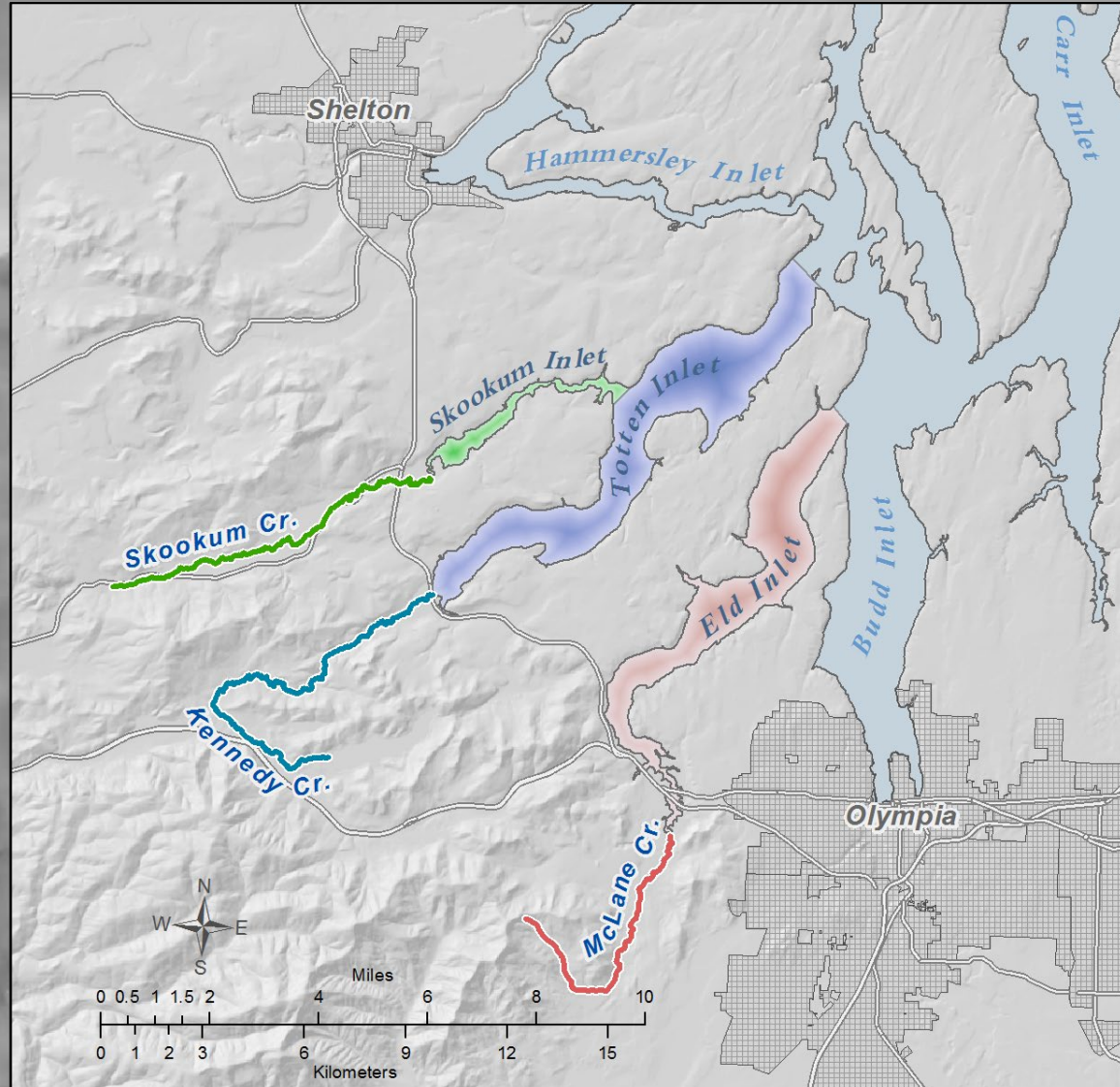


2. Important native, wild species

- Economically (\$1.1 million annually in Puget Sound)
- Ecologically
- Scientifically (Expand understanding of other salmonids)
- Remain in the Salish Sea for their entire marine phase



South Sound Cutthroat Trout



Coastal Cutthroat Genetic Baseline

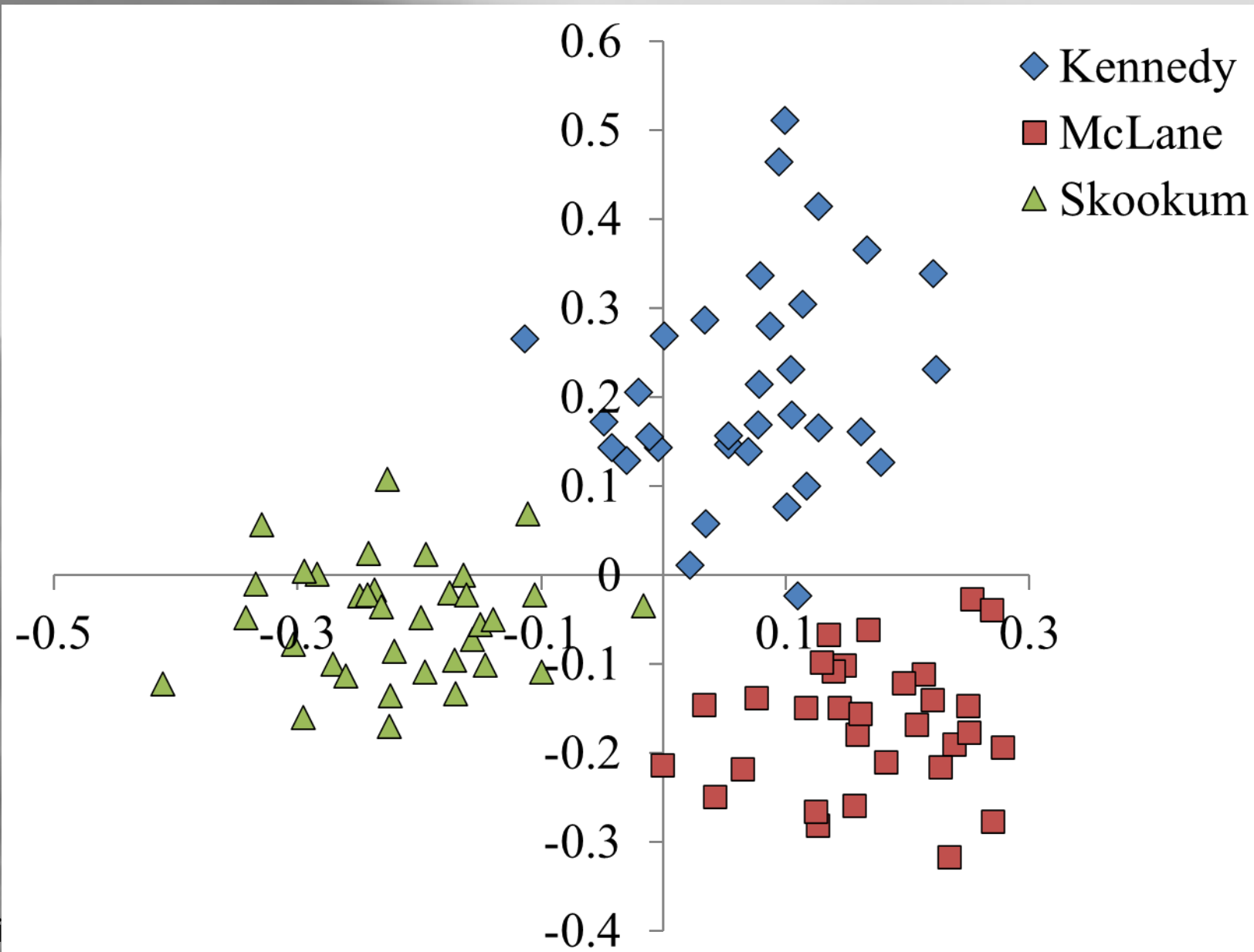
Skookum

Kennedy

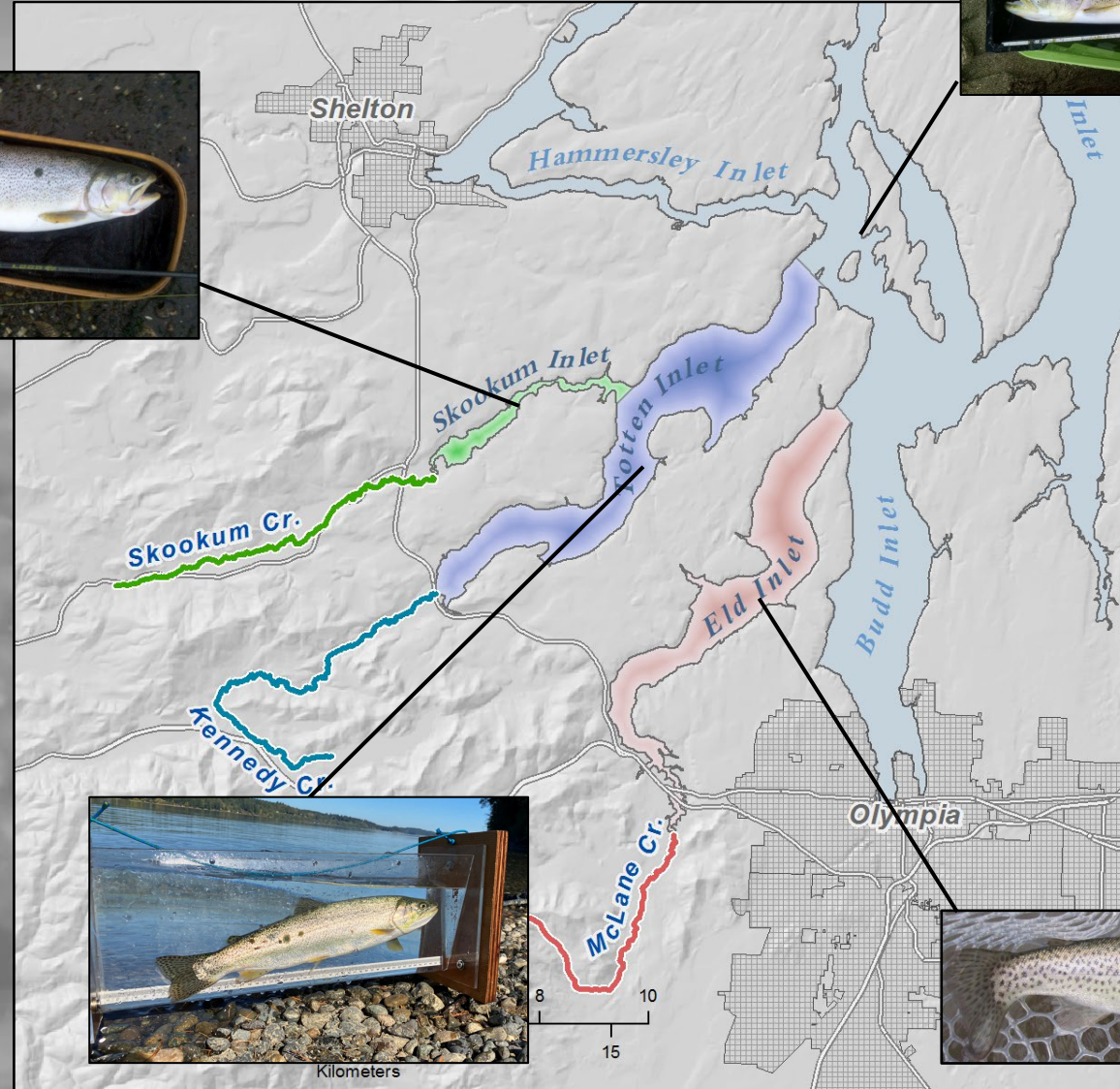
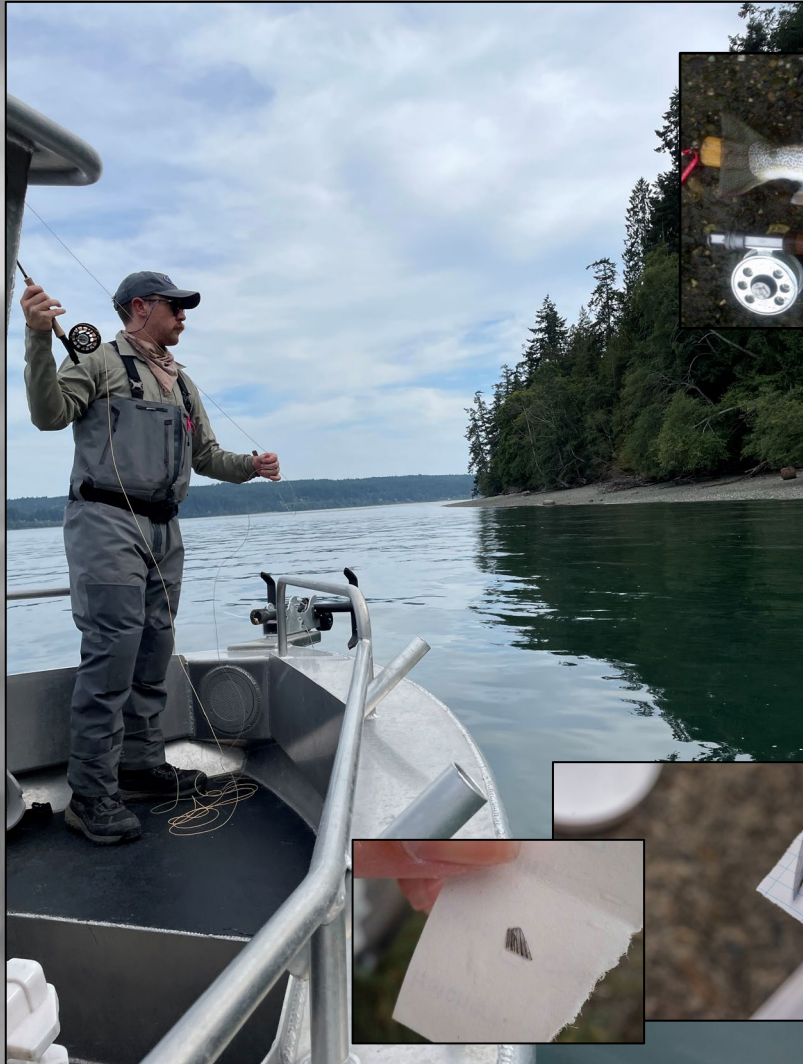
McClane



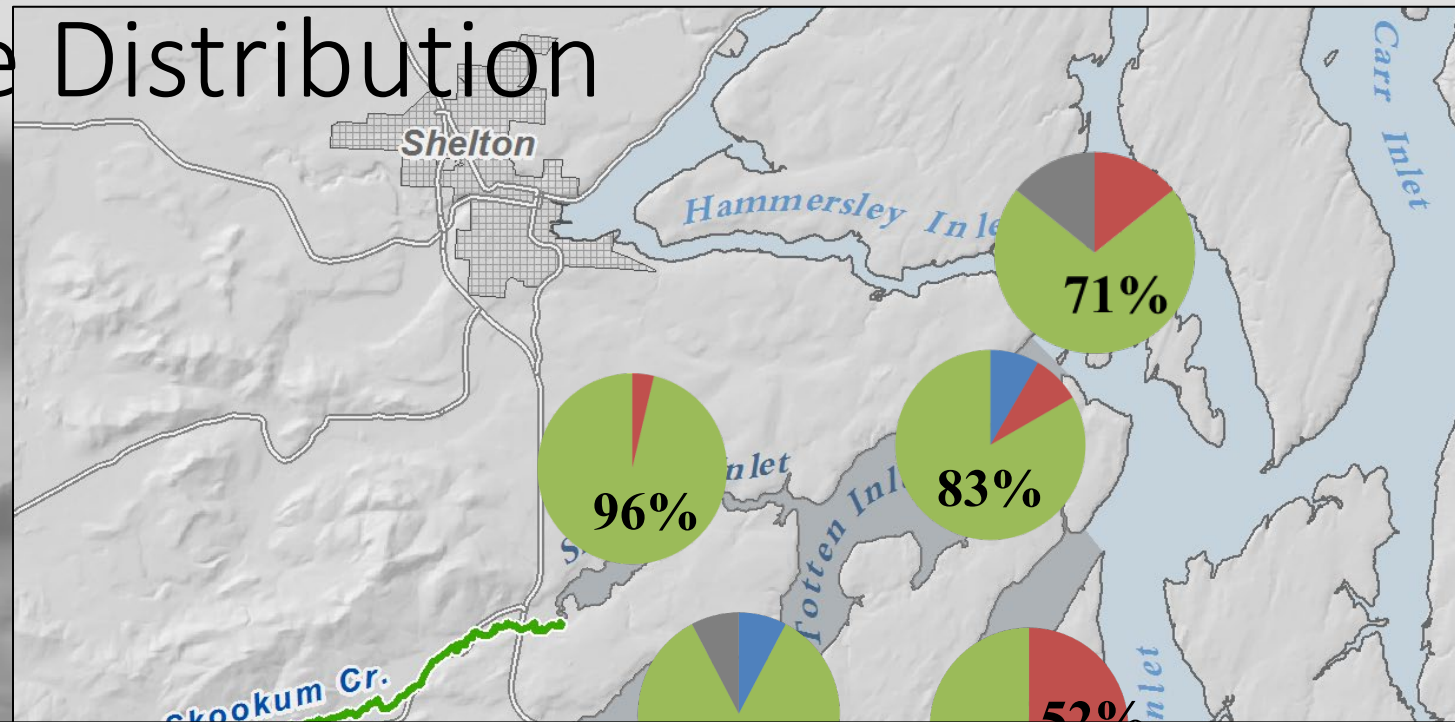
Results-Distinct Groups



Marine Distribution



Marine Distribution

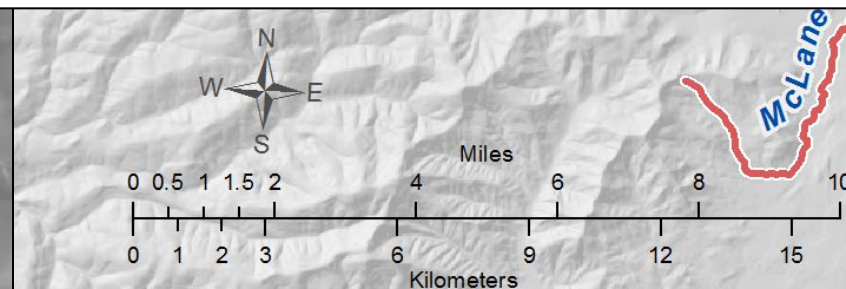


Total N=87
3.5% 2.3%

Marine distribution:

- South Sound Trout fishery is composed of mixed stocks.
- Skookum creek is disproportionately contributing.

77.



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Migration patterns of anadromous Cutthroat Trout in South Puget Sound: A fisheries management perspective

Traditional Tools for Cutthroat Science



stomach contents-
diet analysis



Parasites
Argulids and Copepods



Tagging
movement patterns



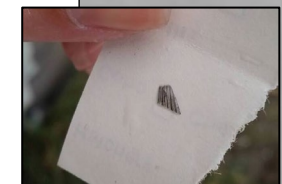
Scales & otoliths-
age + life history



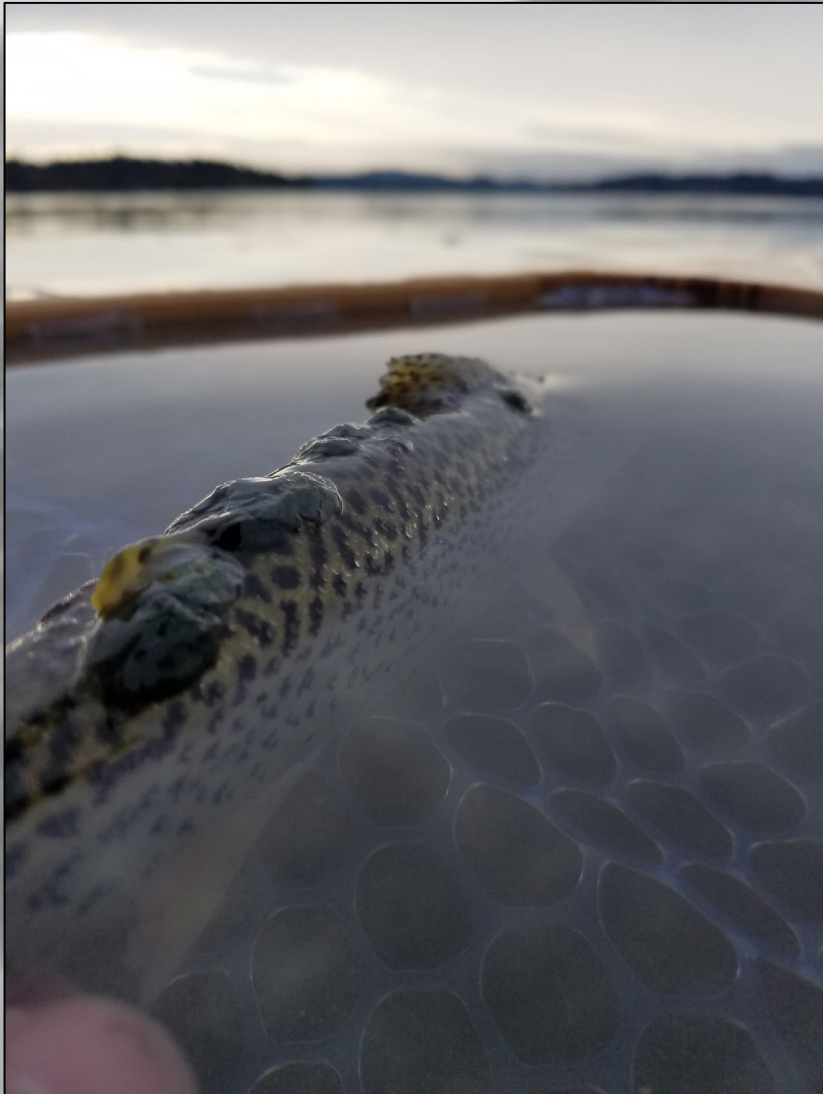
length and weight-
condition and growth

expression of milt?-
sex

fin clip-
genetic stock assignment



Crowd Sourcing Cutthroat Science



Cutthroat Parasite Reporting Tool

Please Choose a Figure to Display
 Instructions

Angler First Name

Angler Last Name

Contact Info (Email or Phone)

Catch Area
 Please Select

Angling Method
 Please Select

Capture Month
 Please Select

Capture Day
 Please Select

Capture Year

Welcome to the Coastal Cutthroat Coalition Parasite Reporting Tool!

Please fill out the angler name, capture date, marine area, hours fished, and total trout count

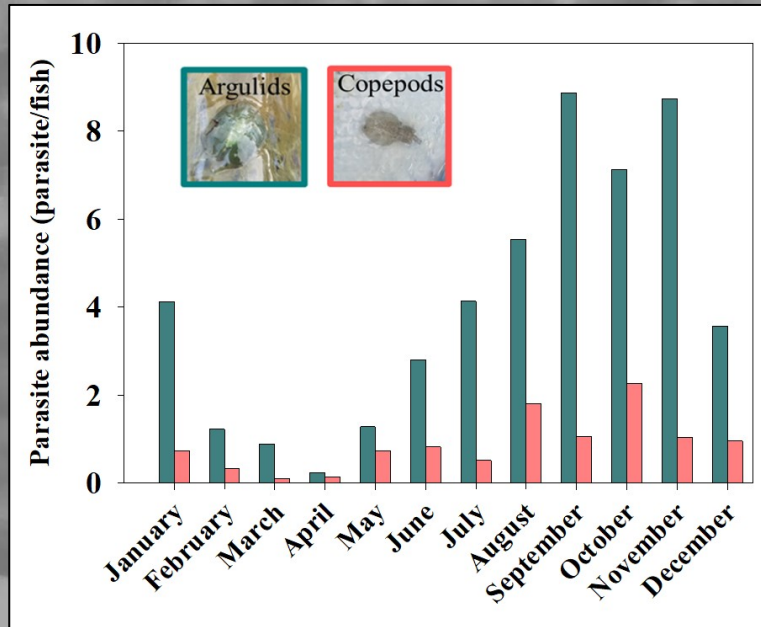
After these sections are filled out, please double click the Input Data button. Fill out a row of data for each trout, even those caught without parasites

For an image to help identify a copepod and argulid, or a map of catch areas, please toggle the figure to display below

Once all data is filled out, please hit the Send Data button

Thanks for reporting parasites on your catch!
 Please email James Losee at james.losee@dfw.wa.gov
 If you have any questions related to the tool

Message
 1 Please fill out the above information and click Input Data to continue



FEATURE

Volunteer Angling and Technology-Based Solutions Provide the First Estimate of Sea Lice Infections for Wild Searun Cutthroat Trout (*Oncorhynchus Clarkii Clarkii*)

James P. Losee | Washington Department of Fish and Wildlife, 1111 Washington St SE, Olympia, WA 98501 | Swedish University of Agricultural Science, Umea, Sweden. E-mail: james.losee@dfw.wa.gov

Derek R. Dapp | Washington Department of Fish and Wildlife, Olympia, WA

Sasha Madel | Washington Department of Fish and Wildlife, Olympia, WA


Greg Shimek | Coastal Cutthroat Coalition, Belfair, WA

Angler Kathryn Losee inspects a Coastal Cutthroat Trout *Oncorhynchus clarkii clarkii* caught in marine water for ectoparasites to report online

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 DOI: 10.1002/fsh.1682


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Coastal Cutthroat Trout Science

 **PERSPECTIVE**

Diverse and changing use of the Salish Sea by Pacific salmon, trout, and char

Thomas P. Quinn and James P. Losee

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Fisheries Research

journal homepage: www.elsevier.com/locate/fishres

Migration patterns of anadromous Cutthroat Trout in South Puget Sound: A fisheries management perspective

North American Journal of Fisheries Management
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ISSN: 0275-9947 print / 1548-8675 online
DOI: 10.1002/nafm.10500

ARTICLE

Estimating Migratory Behavior and Age for Anadromous Coastal Cutthroat Trout in South Puget Sound: Evaluation of Approaches Based on Fish Scales versus Otoliths

Wild Trout Symposium XII—Science, Politics, and Wild Trout Management: Who's Driving and Where Are We Going?

Cutthroat Trout in Saltwater: Spawn Timing, Migration Patterns and Abundance of Anadromous Coastal Cutthroat Trout

James P. Losee, Gabe Madel, Hannah Faulkner, Andrew Claiborne, Todd R. Seamons, William Young

Washington Department of Fish and Wildlife, 600 Capitol Way N. Olympia Washington 98502

Anadromous Coastal Cutthroat Trout (*Oncorhynchus clarkii clarkii*) as a Host for *Argulus pugettensis* (Crustacea, Branchiura): Parasite Prevalence, Intensity and Distribution

Received: 31 August 2022 | Revised: 29 January 2024 | Accepted: 31 January 2024
DOI: 10.1002/na.4257

RESEARCH ARTICLE **WILEY**

Evaluation of alternative approaches to PHABSIM modeling of coastal cutthroat trout spawning habitat

North American Journal of Fisheries Management
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ISSN: 0275-9947 print / 1548-8675 online
DOI: 10.1002/nafm.10507

MANAGEMENT BRIEF

Evaluation of Visible Implant Elastomer Tags in Wild Coastal Cutthroat Trout in the Marine Environment

Rev Fish Biol Fisheries
<https://doi.org/10.1007/s11160-023-09824-0>

ORIGINAL RESEARCH

Anadromous trout from opposite sides of the globe: biology, ocean ecology, and management of anadromous brown and cutthroat trout

Received: 8 August 2018 | Accepted: 26 September 2018
DOI: 10.1111/jfb.13824

JOURNAL OF FISH BIOLOGY

REGULAR PAPER

Size, age, growth and site fidelity of anadromous cutthroat trout *Oncorhynchus clarkii clarkii* in the Salish Sea

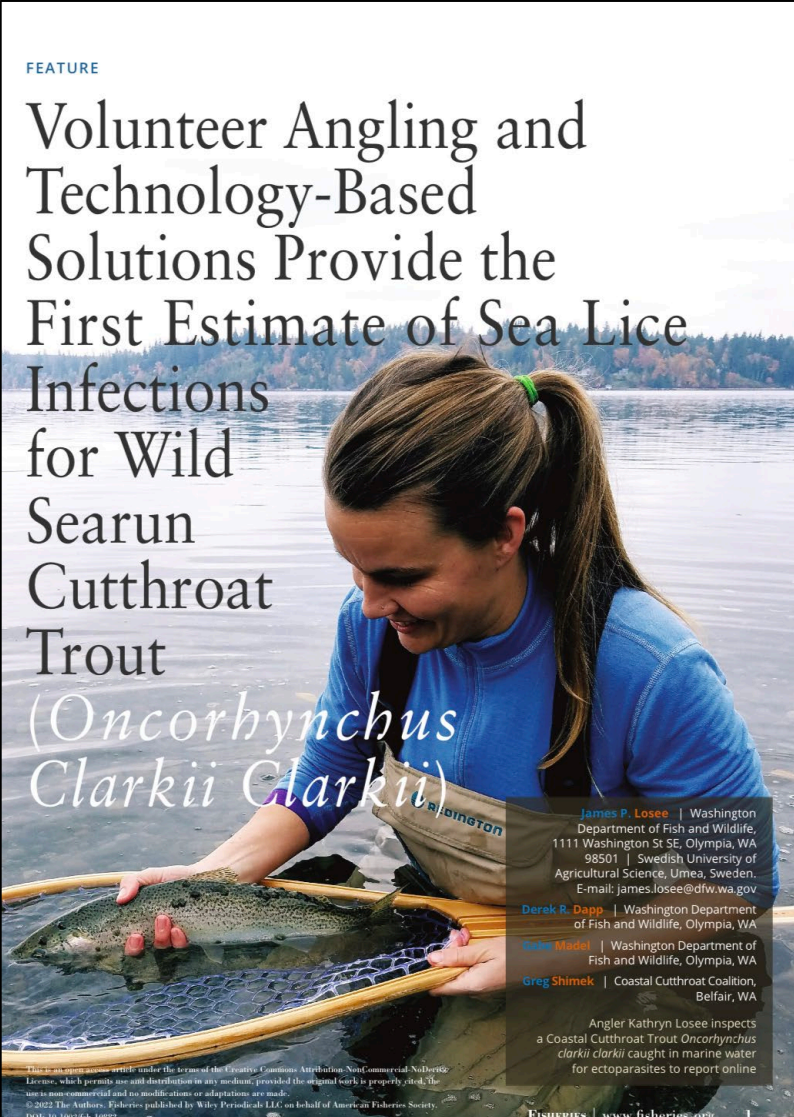
 North American Journal of Fisheries Management 

ISSN: 0275-9947 (Print) 1548-8675 (Online) Journal homepage: <http://www.tandfonline.com/loi/ufm20>

Spawn Timing and Redd Morphology of Anadromous Coastal Cutthroat Trout *Oncorhynchus clarkii clarkii* in a Tributary of South Puget Sound, Washington

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James P. Losee | Washington Department of Fish and Wildlife, 1111 Washington St SE, Olympia, WA 98501 | Swedish University of Agricultural Science, Umea, Sweden. E-mail: james.losee@dfw.wa.gov

Derek R. Dapp | Washington Department of Fish and Wildlife, Olympia, WA

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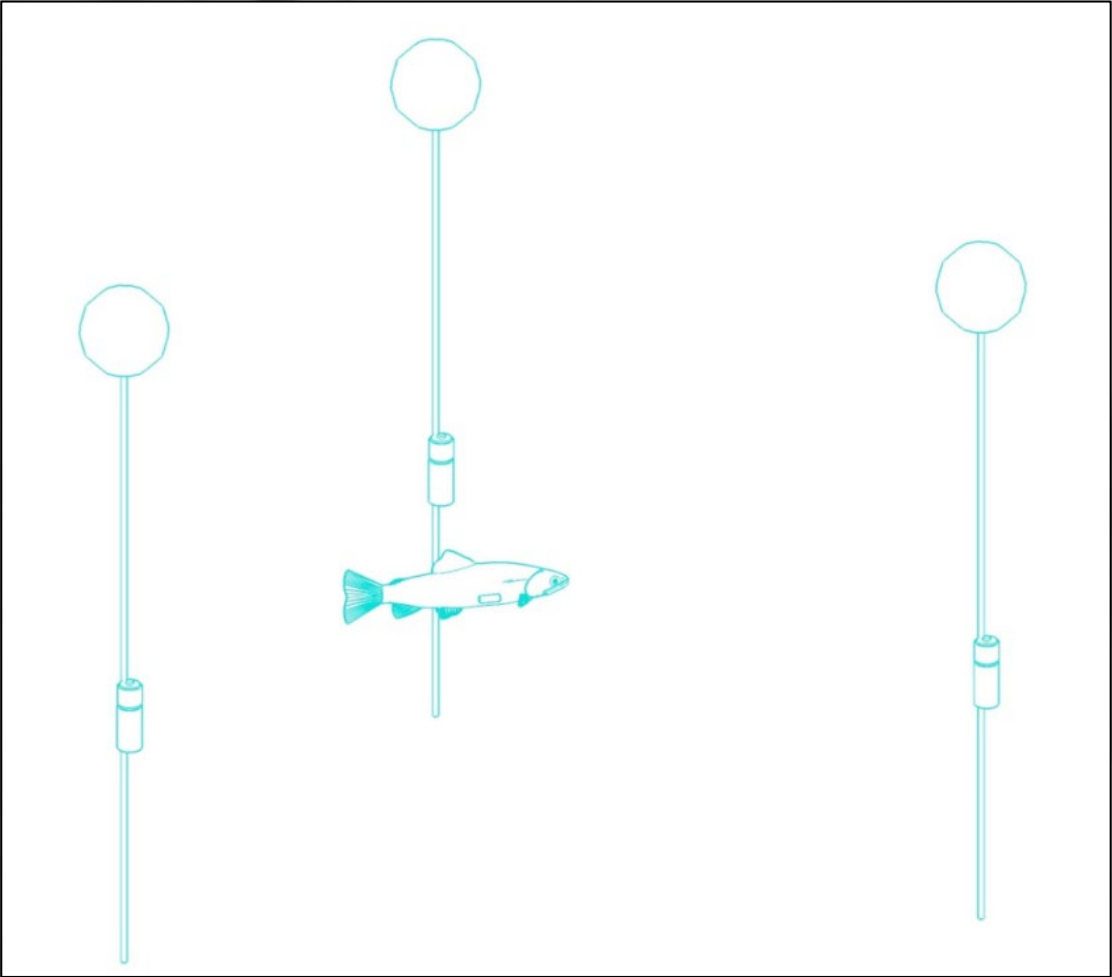
Greg Shimek | Coastal Cutthroat Coalition, Belfair, WA

Angler Kathryn Losee inspects a Coastal Cutthroat Trout *Oncorhynchus clarkii clarkii* caught in marine water for ectoparasites to report online

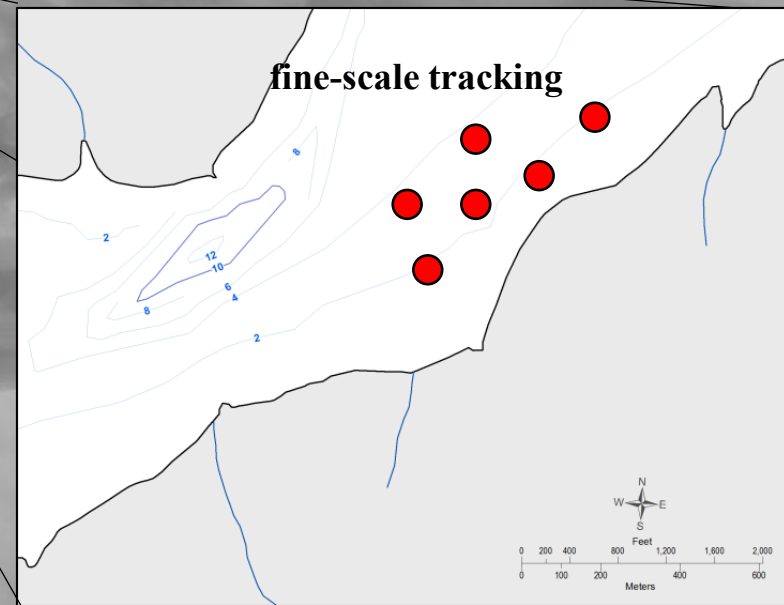
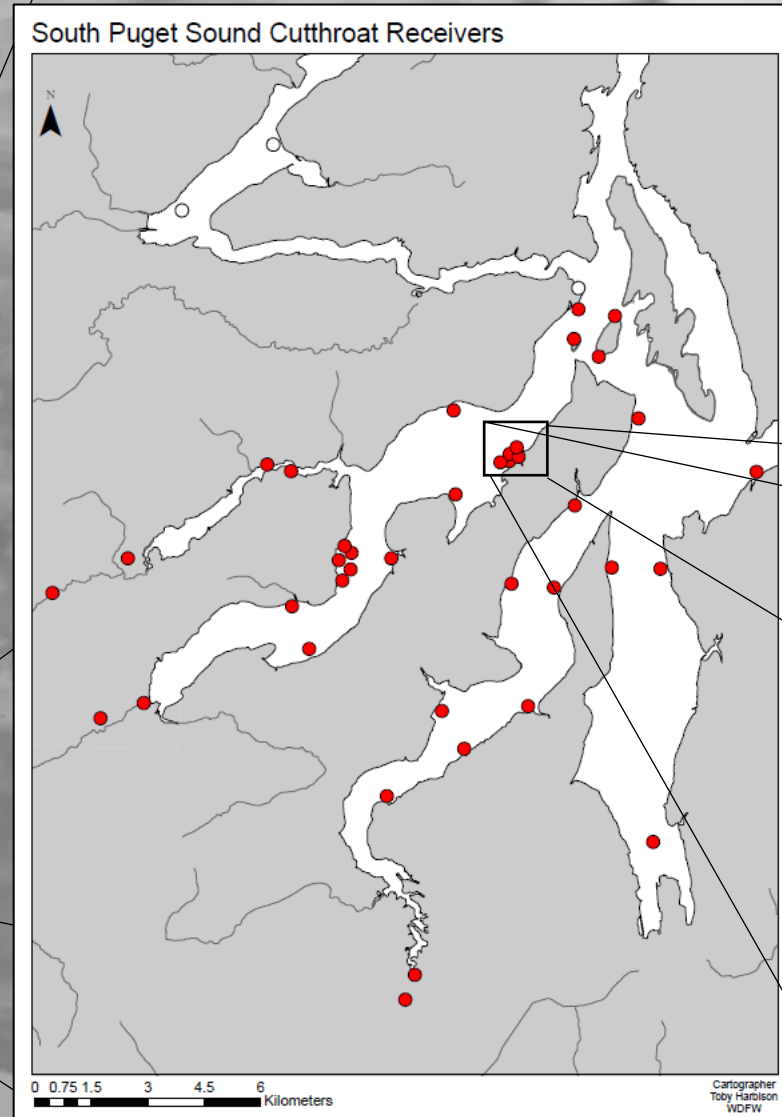
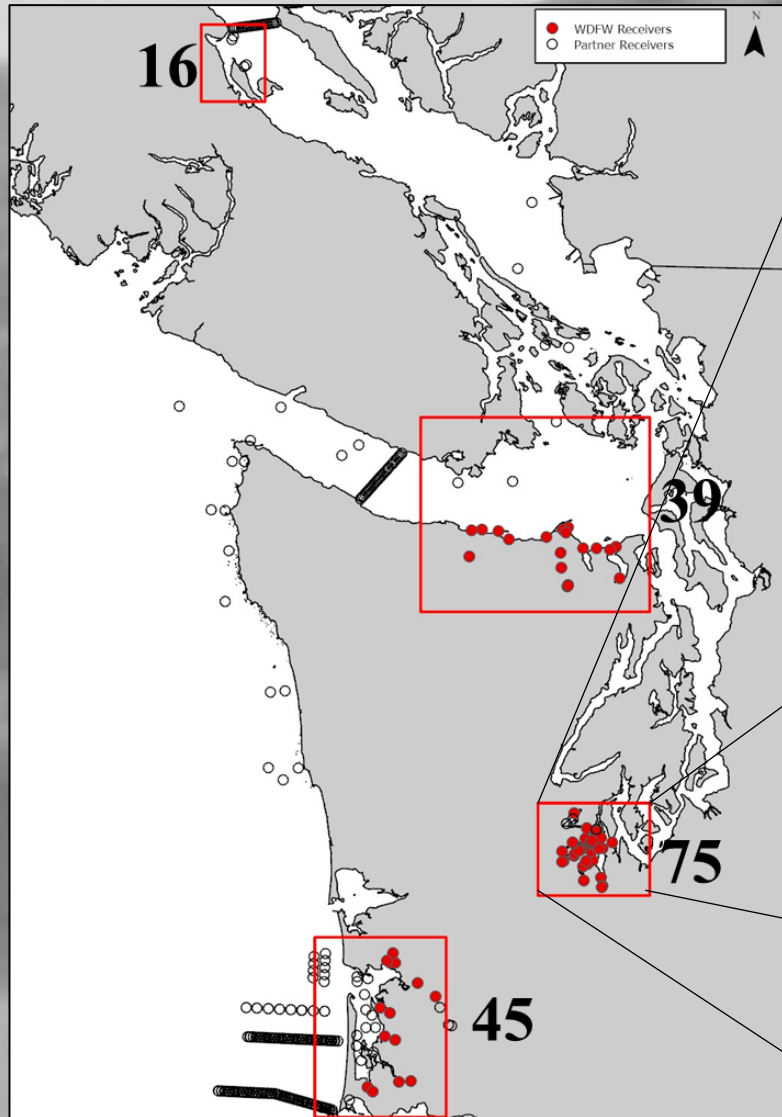
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DOI: 10.1002/fsh.16882

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Tracking Searun Cutthroat Trout



Tracking Searun Cutthroat Trout



Appreciation

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- Support: Squaxin Island Tribe, Chris Burns (Jamestown S’Klallam Tribe) Ashleigh Epps, Chelsea Farms (Shina Wysocki), Calm Cove Oyster Co. LLC (Duane Fagergren), Joe Smith and David Huff (NOAA), Taylor Shellfish (Bill Taylor, Gordon King, Jeremy Coleman, Supatra Krongmuang, Pablo Aguilar), Sea Mar Shellfish, Shane Anderson.
- WDFW colleagues: Todd Seamons, Andrew Claiborne, Gabe Madel, Amy Edwards, Austin Anderson, Craig Burley, Steve Caromile, Kelly Cunningham, Chris Gleizes, Lee Pilon, Jason Smith, Riley Freeman, Mike Lucero, Jessica Pease, Casey Sloth, Erin Witkop, Megan Wusterbarth, Nick Vanbuskirk.

Next steps: Cutthroat Trout Marine Survival



Next steps: Cutthroat Trout Diet



Jason Toft



Anadromous Cutthroat Life Cycle

