

2015 Alaska Fish Passage Meeting

Fish Movements and Behavior Session

GOAL

Provide participants with a common understanding of:

- **fish movements**
- **culvert impacts on fish movements**



Fish Movement Studies in Alaska

2015 Alaska Fish Passage Meeting

Juneau, Alaska

October 13-14, 2015

John Hudson
Juneau Field Office



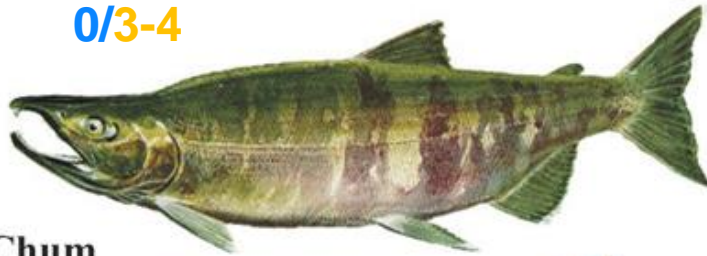
PACIFIC SALMON

1-2/2-7



Chinook

0/3-4



Chum

1-4/1-4



Sockeye

1-5/0.5-1.5



Coho



Pink

0/0.5-1.5

Residency (years)
freshwater/saltwater

Other anadromous salmonids



Cutthroat trout



Dolly Varden char



Rainbow trout (Steelhead)



R. Golub

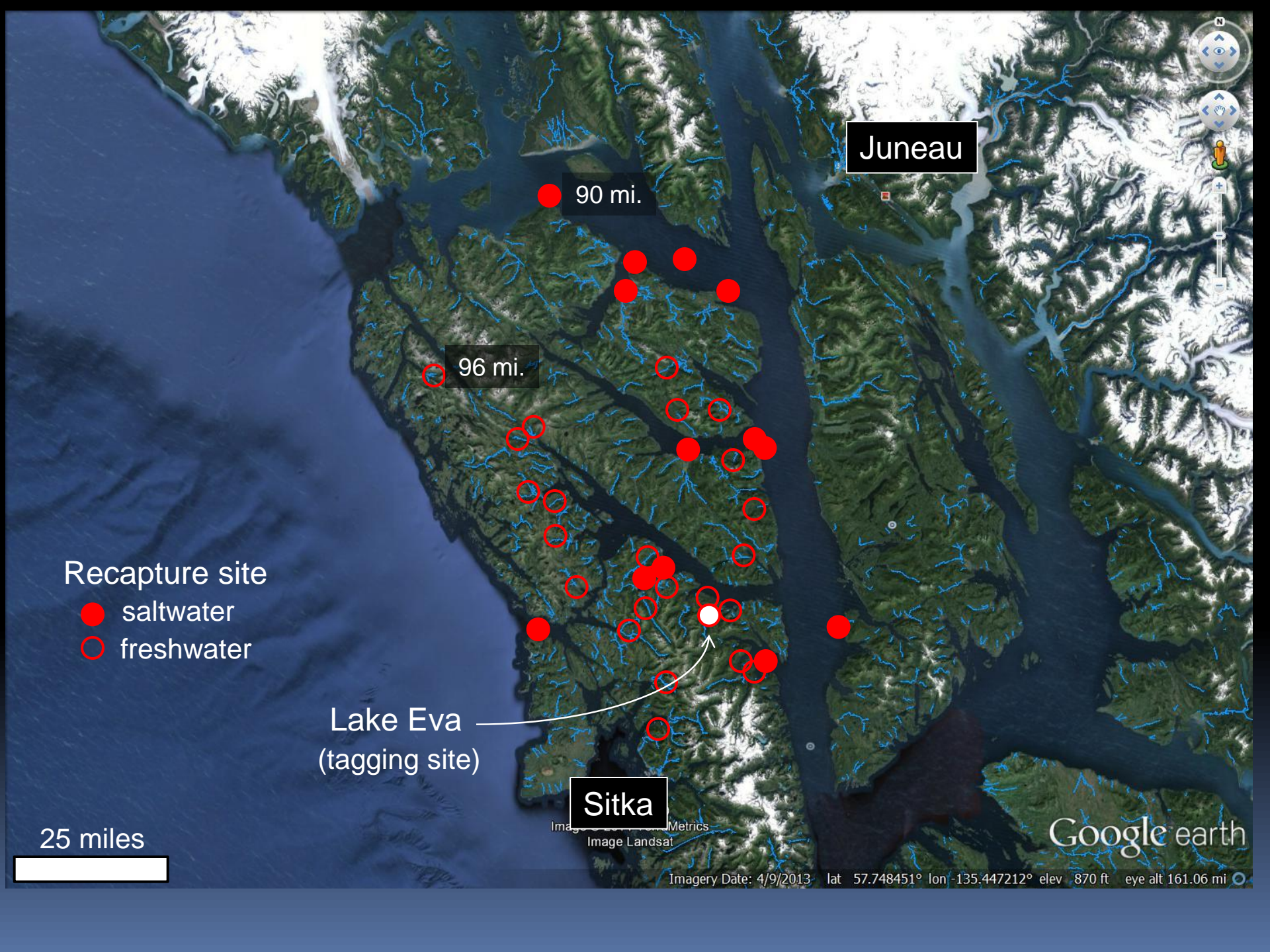
Migration of Anadromous Dolly Varden Char in SE Alaska – A Manager’s Nightmare

Robert H. Armstrong
ADFG

Lake Eva
(tagging site)

25 miles





Juneau

90 mi.

96 mi.

Recapture site

- saltwater
- freshwater

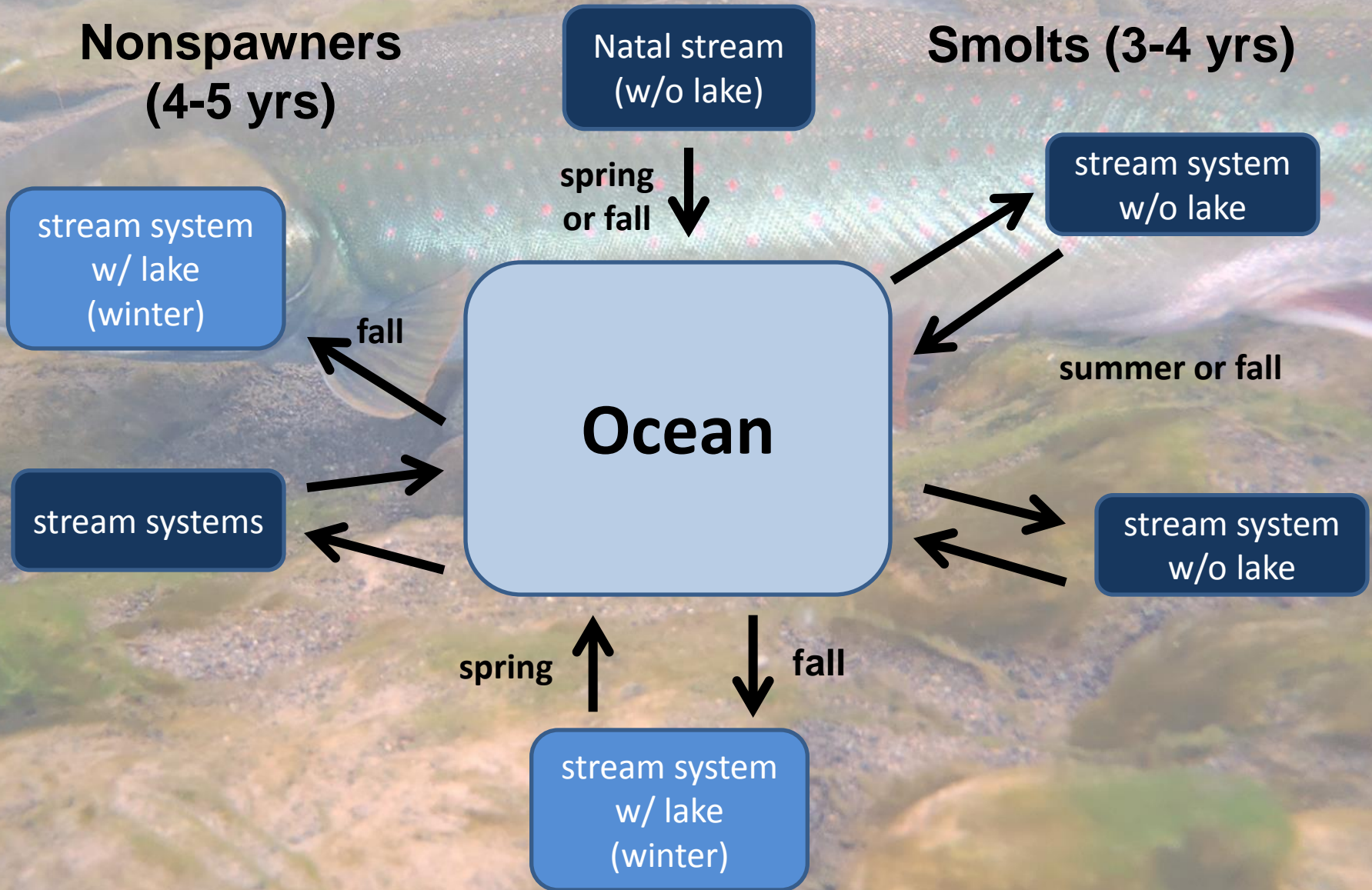
Lake Eva
(tagging site)

Sitka

25 miles

Google earth

Dolly Varden Seasonal Migrations



Movements of Sea-Run Cutthroat Trout Overwintering in Auke Lake in Juneau Alaska

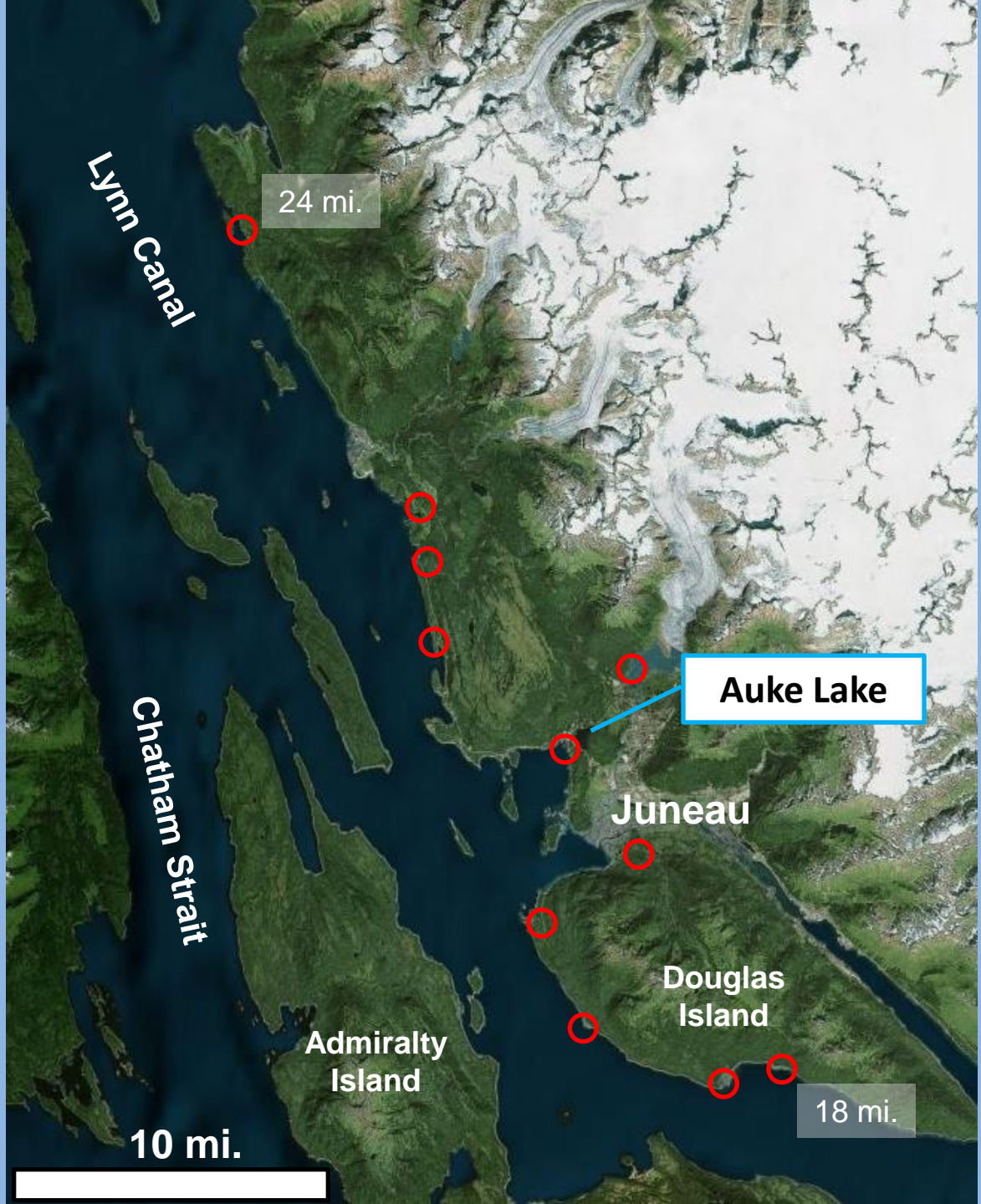
Doug Jones
and
Cheryl Seifert
(ADFG)

Auke Bay

1 mile



Cutthroat trout spawning streams ○



**Tuxekan
Passage**

**Seasonal Use of
Tributary and
Main-Stem
Habitats by
Juvenile
Steelhead, Coho
Salmon, and Dolly
Varden**

Robert G. Bramblett et al.

Twiw Creek

Tye Creek

**Staney
Creek**

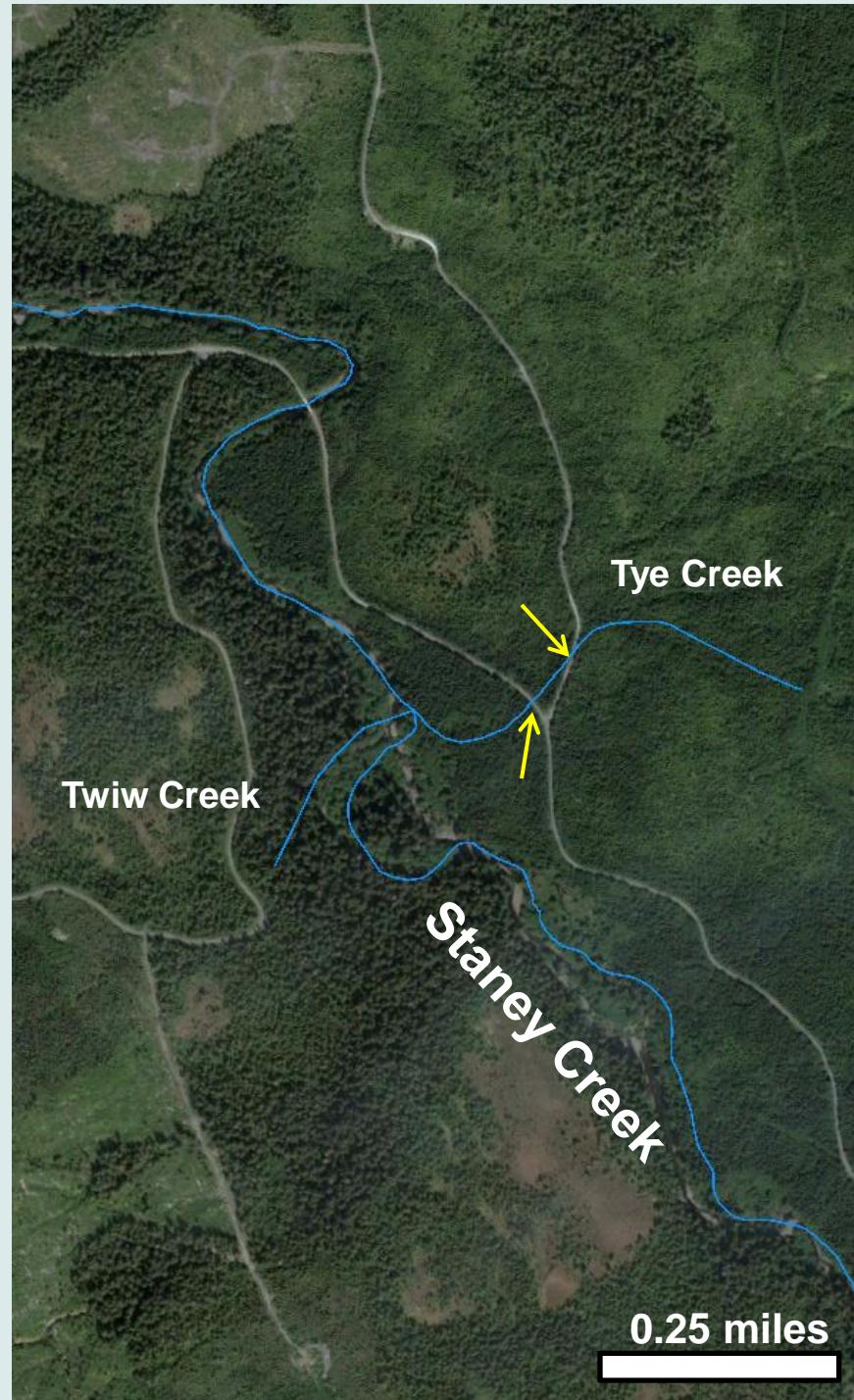
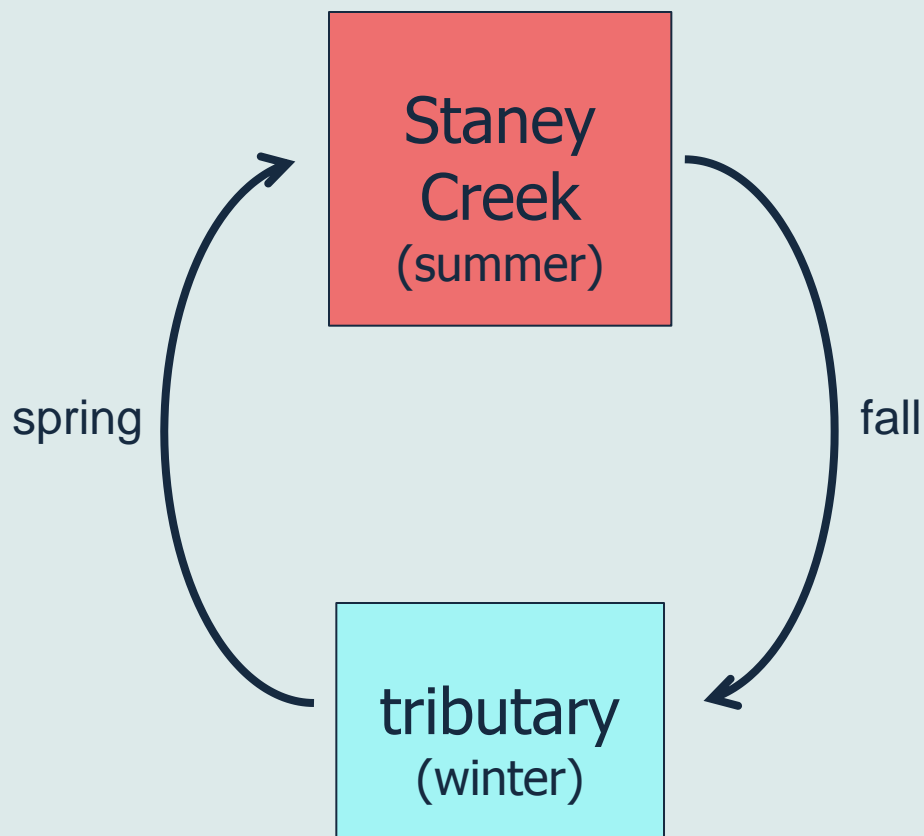
3 miles



RESULTS

JUVENILE STEELHEAD:

- summer in Staney Creek (mainstem)
- winter in tributaries
- 1,055 overwintered in Tye Creek



Summary

- **Know your fish – movement patterns vary within and among species**
- **Fish move seasonally among spawning, rearing, overwintering, and growth/maturation habitats**
- **Seasonal habitats can be widely distributed**
- **Small streams can play a large role in supporting fish populations**
- **Numerous scientific studies support our current understanding of fish movement patterns in Alaska**

Dolly Varden Seasonal Migrations

(spawners)

Lake
(winter)

fall ↑ ↓ spring

Ocean

fall ↑ ↓ spring

Natal stream
(summer/fall)

