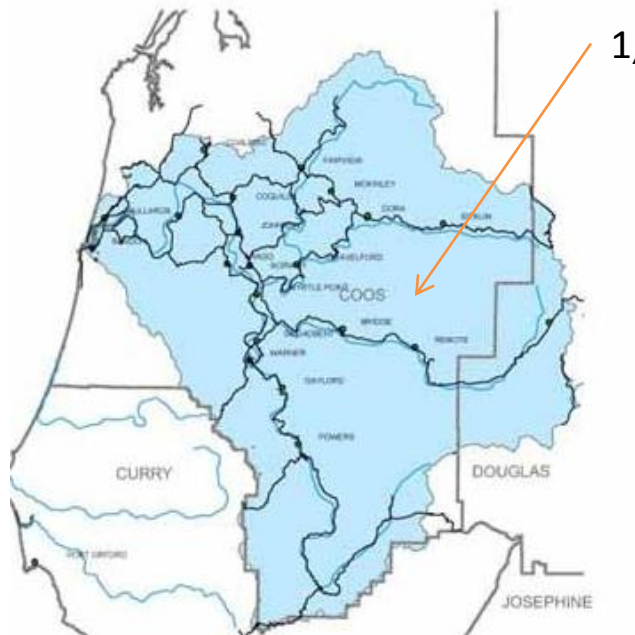




ECONorthwest study 2009

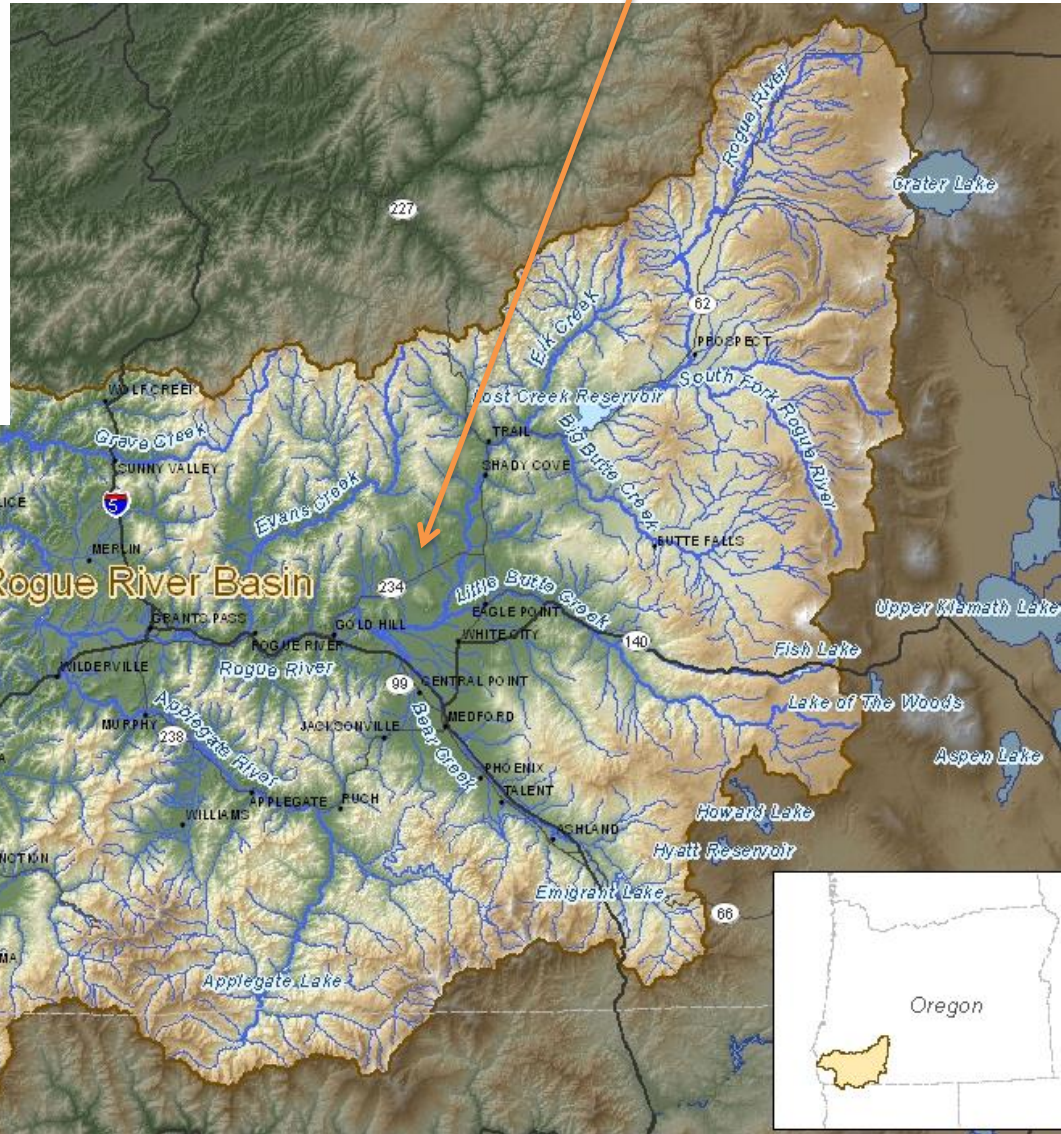
- Value of Rogue River Salmon
 - \$1.4 million annually from commercial fishing
 - \$16 million annually from sport fishing
 - \$1.5 billion annually associated with non-use values
- Recreation economy on the Rogue River
 - \$30 million in total economic output
 - \$15.4 million in personal income
 - 445 full- or part-time jobs

Coquille Watershed



1,059 square miles

5,156 square miles



Estuary Comparison

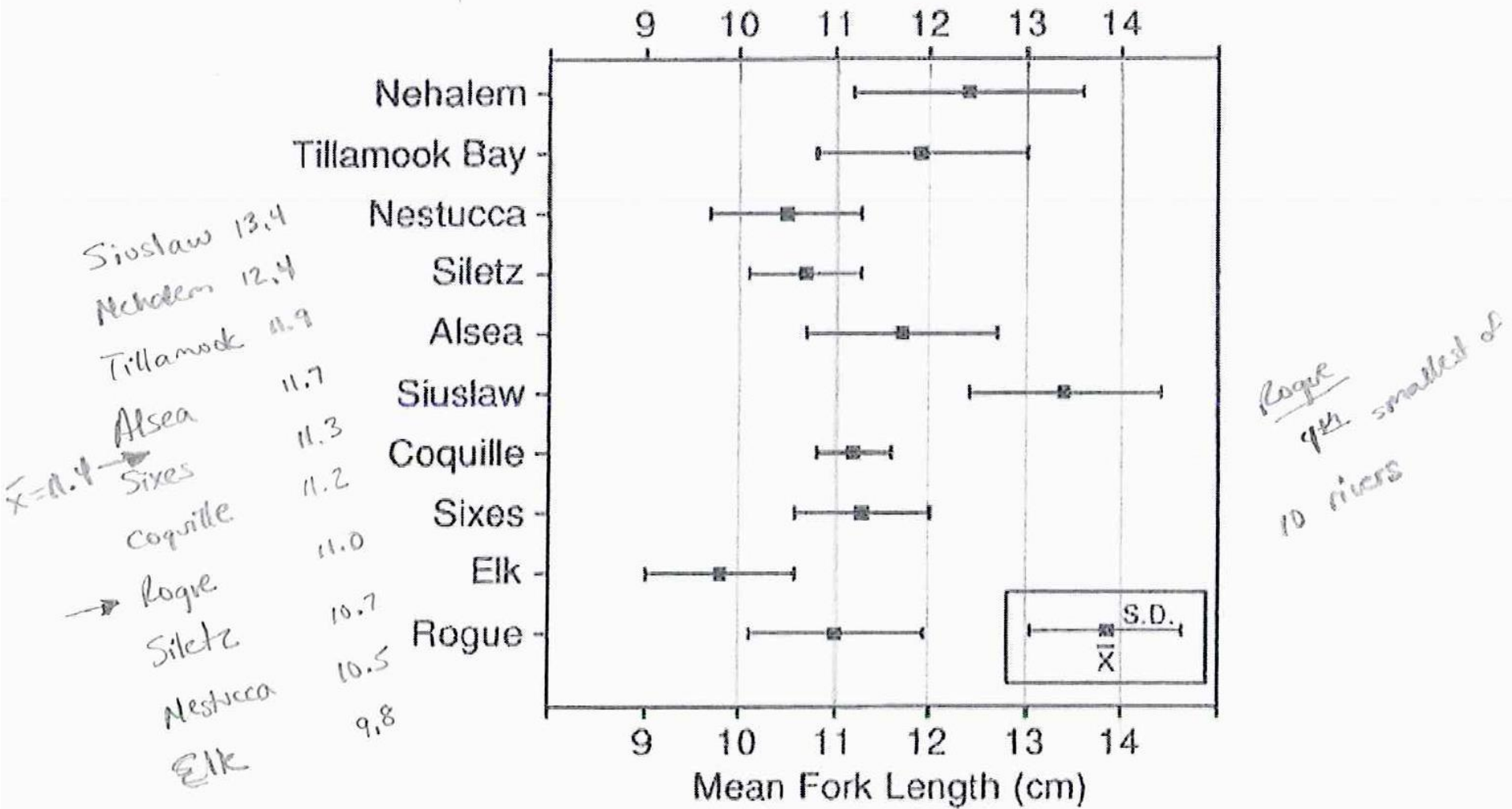
- Coquille River:
 - Head of Tide: 41 miles
 - Extent of saltwater intrusion: 20 miles
- Rogue River
 - Head of Tide 4.5 miles
 - Extent of saltwater intrusion: 1.5-2.5 miles

“...in the Rogue River, juvenile spring Chinook salmon follow **eight** life history pathways including **extensive rearing in the lower river or estuary during the summer months...**”

Mark Schluchter and James Lichatowich, 1977

“We believe that the evidence supports a hypothesis that optimum survival is achieved by juvenile chinook salmon that enter the ocean in late summer or early fall at a relatively large size.” ...and “*we conclude that extended estuarine rearing must provide a survival advantage.*”

Nicholas and Hankin, 1989



From: Chinook Salmon Populations in Oregon Coastal River Basins: Description of Life Histories and Assessment of Recent Trends in Run Strengths by J.W. Nicholas and D.G. Hankin. 1989

“A comparison of 1945 and 1975 adult fish scales from the Rogue River indicate that juvenile spring and fall Chinook spend much less time rearing in the estuary than they did 20 years ago. These data suggests that physical and hydrologic modifications in the Rogue River estuary discussed previously may have had substantial impacts on Chinook populations in the river.”

Timchak, K.L. and C.R. Myers. 2015

A Brief History of the Rogue River

	<u>Completed</u>	<u>Removed</u>
Gold Ray Dam	1904	2010
Gold Hill Diversion Dam	1904	2008
Savage Rapids Dam	1921	2009
Patterson Bridge	1932	
Rogue River Jetties	1960	
Boat basin training jetty	1973	
Lost Creek Dam (13%)	1977	
Applegate Dam (29%)	1980	
Elk Creek Dam	1987	2008
Rogue River Estuary Walk	2008	

1939



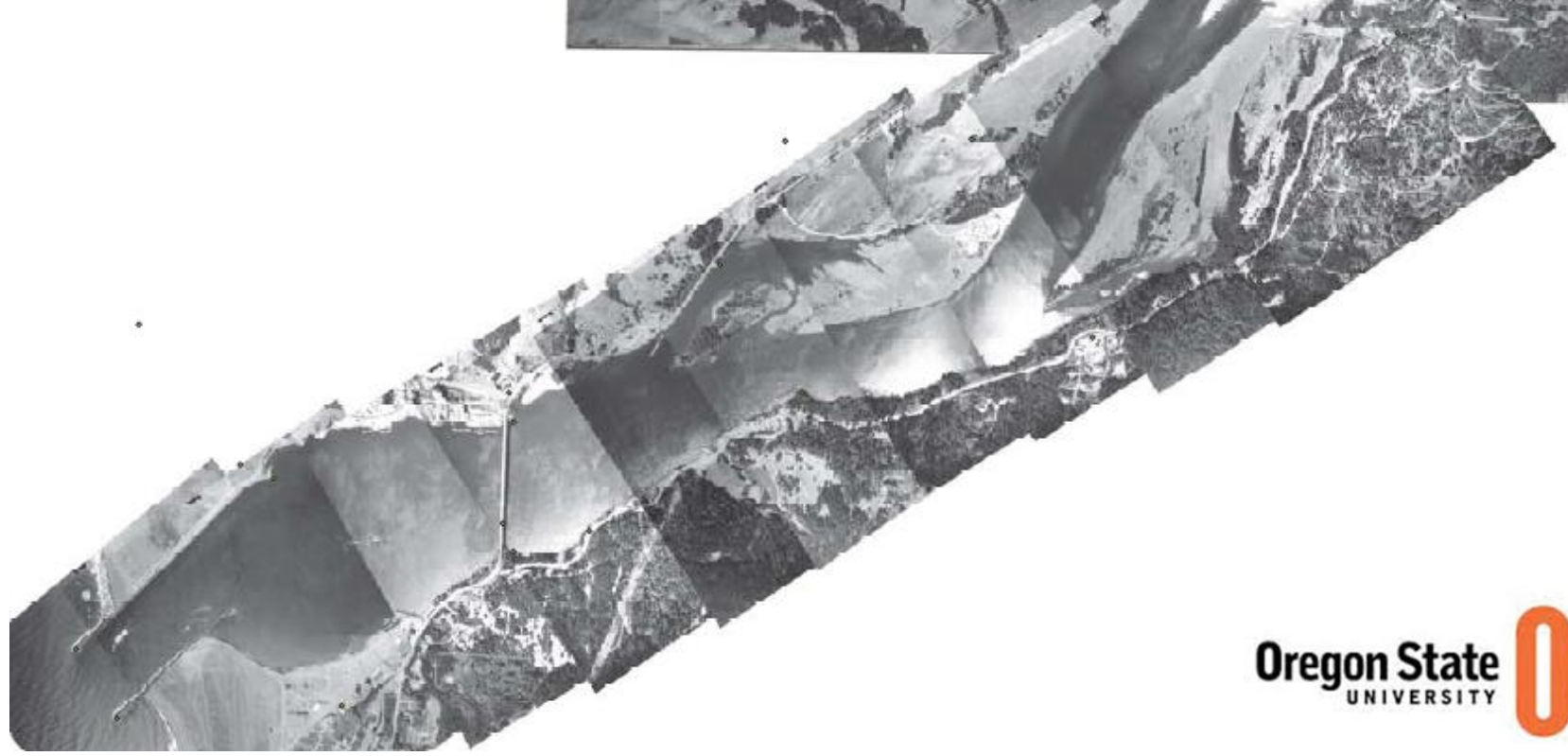
1955



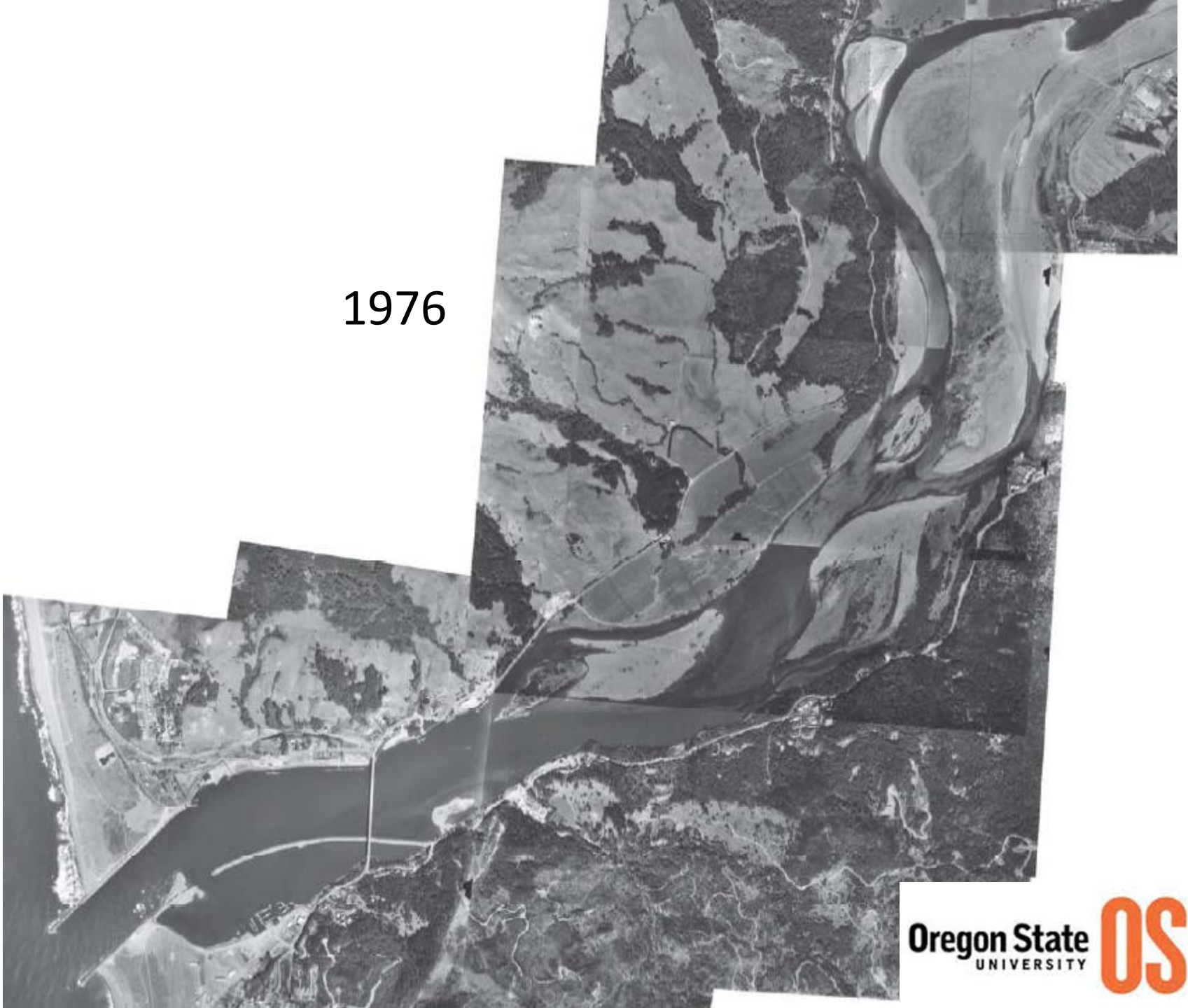
1962



1969



1976





1988

An aerial photograph showing a wide river delta system. The river flows from the bottom center towards the top right, where it branches into several distributaries. The landscape is a mix of light-colored sandy or silty areas and darker, vegetated regions. The river's path is somewhat irregular, with several meanders and oxbow-like features. The overall appearance is that of a dynamic, sediment-rich river system.

2000

Image U.S. Geological Survey



2005

Image © 2015 DigitalGlobe
Image USDA Farm Service Agency

Imagery Date

An aerial satellite image showing a wide river delta flowing into the ocean. The land is a mix of green fields, dark green forests, and sandy areas. A coastal road and some buildings are visible near the shore. The year '2011' is printed in the center of the image.

2011

Image © 2015 DigitalGlobe
Image USDA Farm Service Agency

Imagery D



2013

Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Imagen