**SALMONID NATURAL HISTORY**

**VOCABULARY TERMS**:

* **Anadromous**- A fish that is born in freshwater, migrates to the ocean to spend its adult life, and returns to freshwater to spawn.

* **Stochastic Event**- A random event that can dramatically alter population sizes, selection mechanisms, and genetic isolation. Stochastic events can range from landslides isolating fish populations, droughts and forest fires eliminating habitat and isolating organisms in pockets or available habitat, or hurricanes that randomly kill individuals regardless of their genetic fitness.
* **Phylogenetic Tree**- A diagram showing the genetic relationships of biological organisms based on when new species or subspecies differentiated. Historically, they were built using the evaluation of changes in morphology. However, today DNA sequencing is used to evaluate changes in the genetic code.
* **Pluvial Lake**- A lake that formed when rainfall inputs were significantly higher than evaporate rates. Often these refer to ancient lakes when climates were different, such as the ice age. An example is Ancient Lake Bonneville, now dried up to become the Great Salt Lake.

* **Pro-glacial Lake**- A lake that forms either behind an ice dam formed by a glacier or from the meltwater of a glacier that is dammed by the terminal moraine. An example is Glacial Lake Missoula, where an ice dam blocked the flow of the Clark Fork River in Montana.
* **Genetic Isolation**: The absence of genetic exchange between populations or species as a result of geographic separation or of mechanisms that prevent reproduction.
* **Genetic Drift**- The random changes in genetic variation related to small isolated populations suffering from stochastic events not necessarily related to fitness or natural selection.
* **Founder Effect**- The loss of genetic variation caused by the colonization of a new area by a small population. The limited gene pool means that future offspring can only carry the characteristics of the founders, and may have significantly different characteristics than the species as a whole.
* **Endorheic Basin**- A depression that water drains into, but has no outlet. The Great Basin is one of the largest endorheic basins in the world. Lakes and ponds are often small scale endorheic basins.



**SALMONID NATURAL HISTORY**

**VOCABULARY NOTES**:

Anadromous:

Stochastic Event:

Phylogenetic Tree:

Pluvial Lake:

Pro-glacial Lake:

Genetic Isolation:

Genetic Drift:

Founder Effect:

Endorheic Basin:



Elwha River Restoration

Salmonid Natural History

**Reflection Journal 1**

Why do you think there is such diversity in the different salmonid species?

What questions do you have about the different species of salmonid?



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Salmonid Natural History

**Reflection Journal 2**

How does biological evolution account for the diversity and distribution of salmonid species?

What questions do you have about the biological evolution of the salmonids?