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The Relationship of Oak Gall Size to Lichen Proximity on *Quercus garryana*

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The Relationship of Oak Gall Size to Lichen Proximity on *Quercus garryana* Twigs

By Garrett Noyd

Background



Study Site: Glacial Heritage Preserve

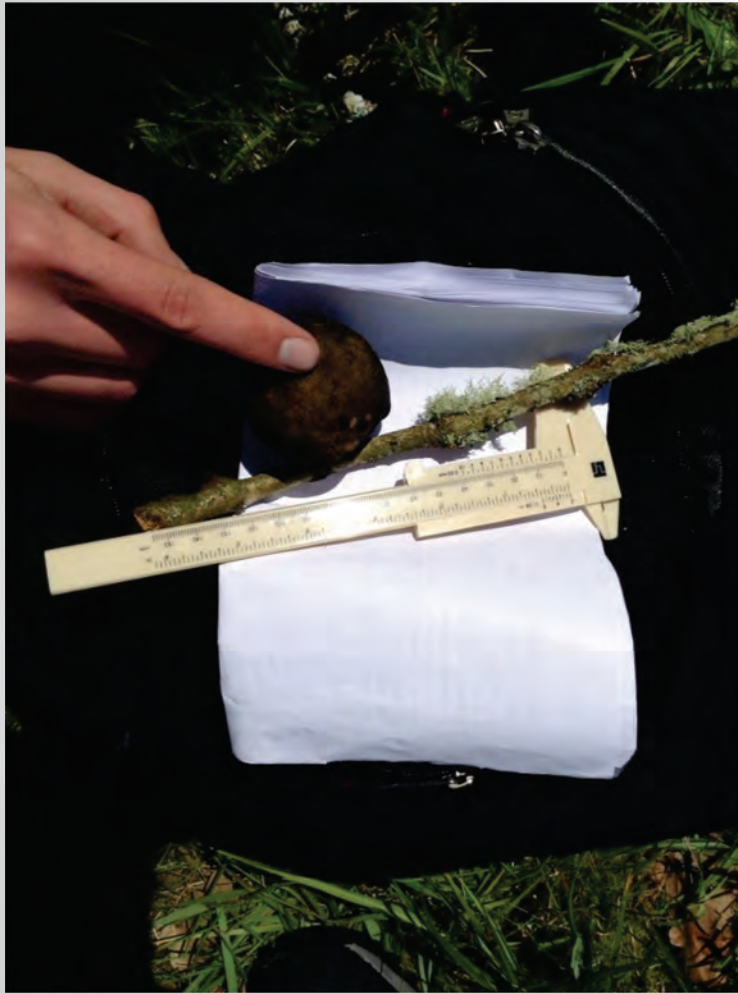
- Formed Roughly 14,000 Years Ago By Glaciers
- Less than 3% of the original Puget Prairie remains
- Has very unique features.

What is a Oak Gall?

- An Oak Gall is a small growth on the branches and twigs of trees that are formed by Gall Wasps

How Are They Formed?

- Oak galls are formed when a female gall wasp lays her eggs on the host plant. She then injects the host plant with a toxin that makes the plant form a tumor around her eggs, protecting them.



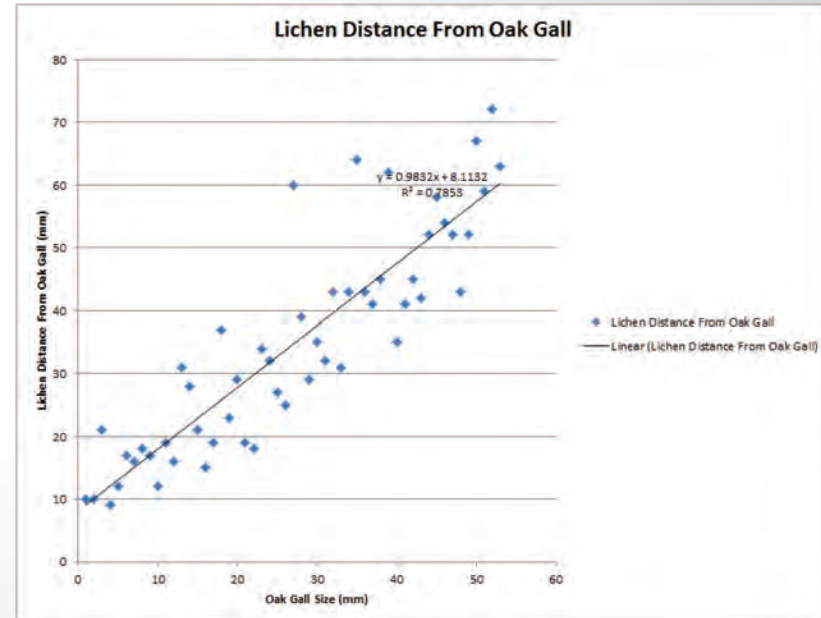
- After the gall falls off the tree from wind/decay, other animals such as birds, and other small animals eat the gall for nutrients

Purpose

- The purpose of this study was to investigate the relationship between oak gall placement and the presence of lichen on twigs.
 - Found there is also a relationship between the age of the twig and the placement of the gall on it.

Our Findings

- There is a strong positive correlation between oak gall size and distance from lichen growth on *Qerucus garryana*.
- Found in the field a strong a correlation between the size of the region that an oak gall occupies and the presence of lichen.



Why Is This Important

- The relationship was hardly, if at all, researched as of last year
- Provides correlations between two different types of living things
- If it is found that there is a decrease in lichen, it could be hypothesized that there is an interference in the lichen/Oak Gall relationship

Huge Thank You To

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Questions?