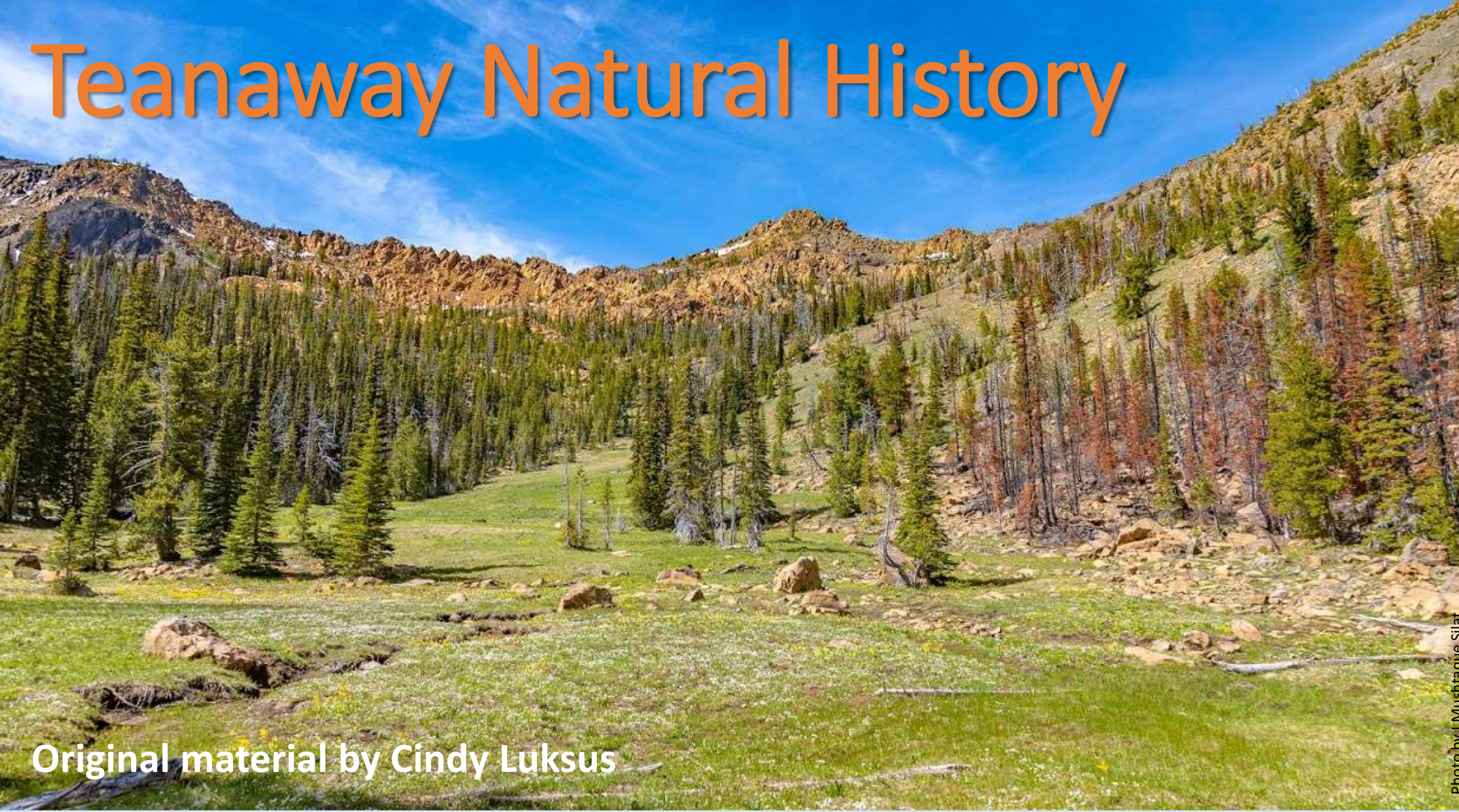
Teanaway Natural History



Original material by Cindy Luksus

Photo by Mushtaque Silat

Teanaway Natural History

1. Who were the first inhabitants?
2. What is the history of the land?
3. Geology of the area
4. Forest dynamics
5. Trees, shrubs, flowers, wildlife, butterflies, lichen

We will do an overview tonight and cover a few topics. You will find the rest of the slide deck online, with portions covering flowers and shrubs, as well as more on the geology of the area.

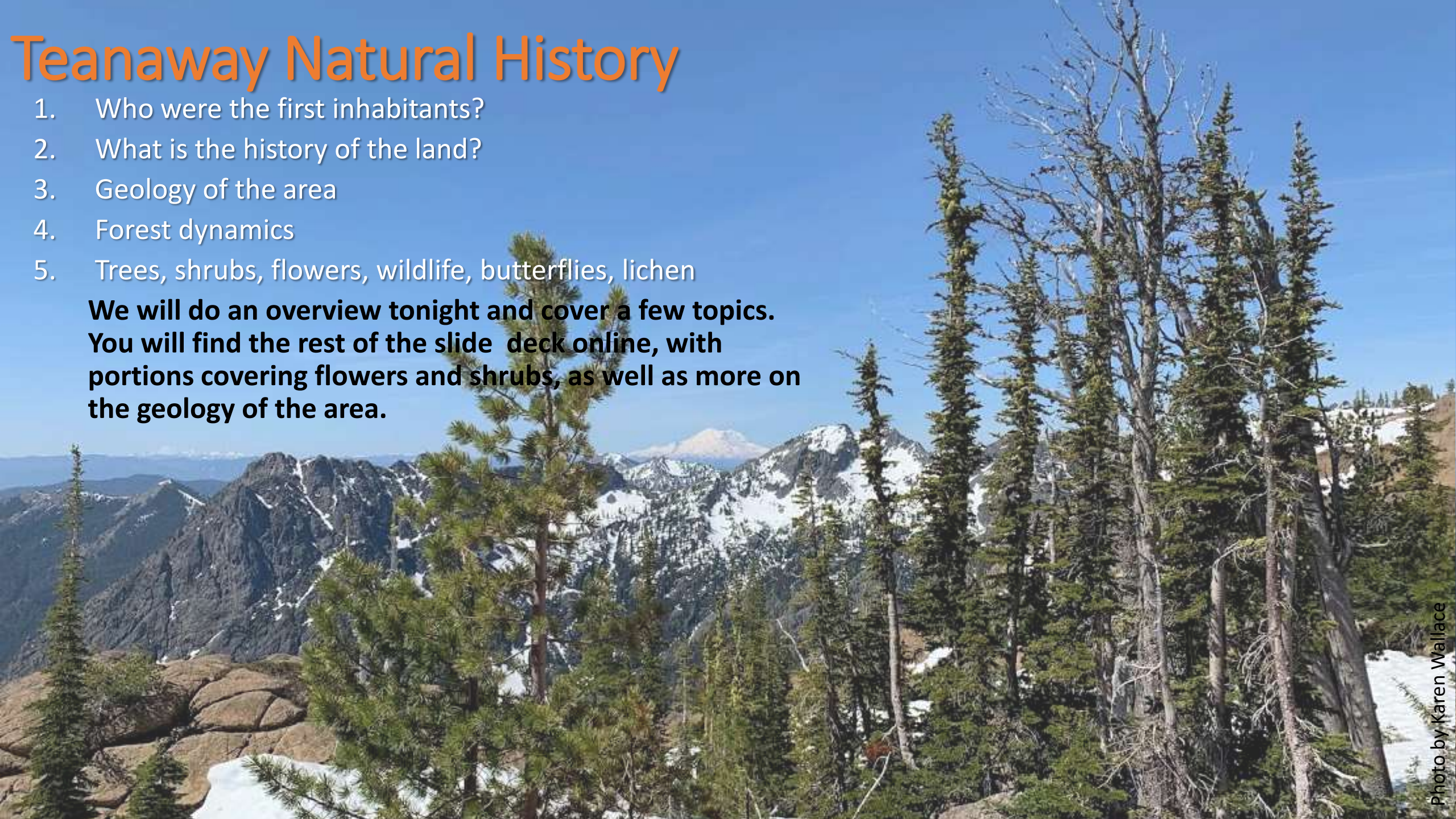


Photo by Karen Wallace

Teanaway History

The first inhabitants of the Teanaway River Valley were members of the Yakama, Cayous and Nez Perce Indian Tribes. The Teanaway Valley was part of the summering grounds for these tribes. The name Teanaway possibly had its origins in a Sahaptin word, tyawnawí-ins, meaning “Drying Place”.

The watershed is within the ceded area of the Yakama Nation under the Treaty of 1855.

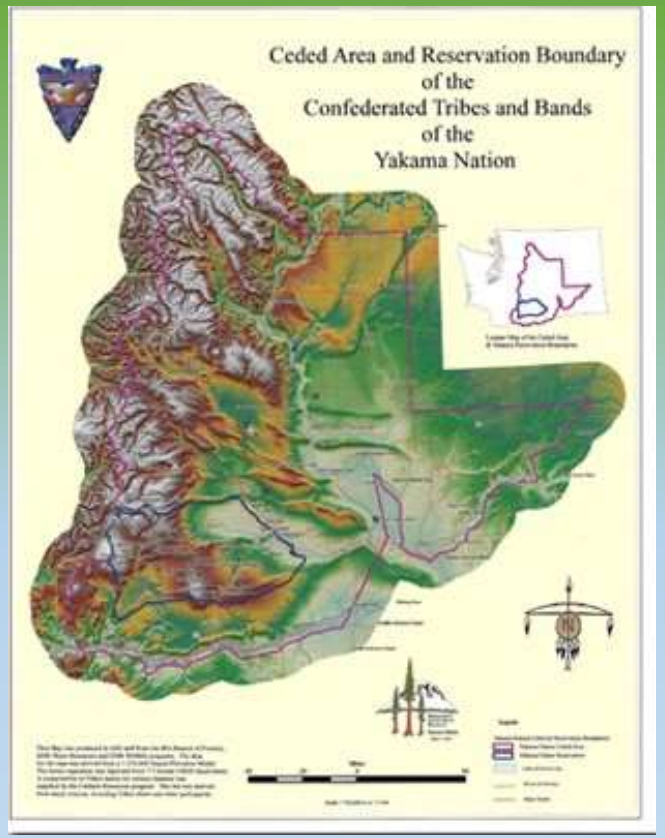
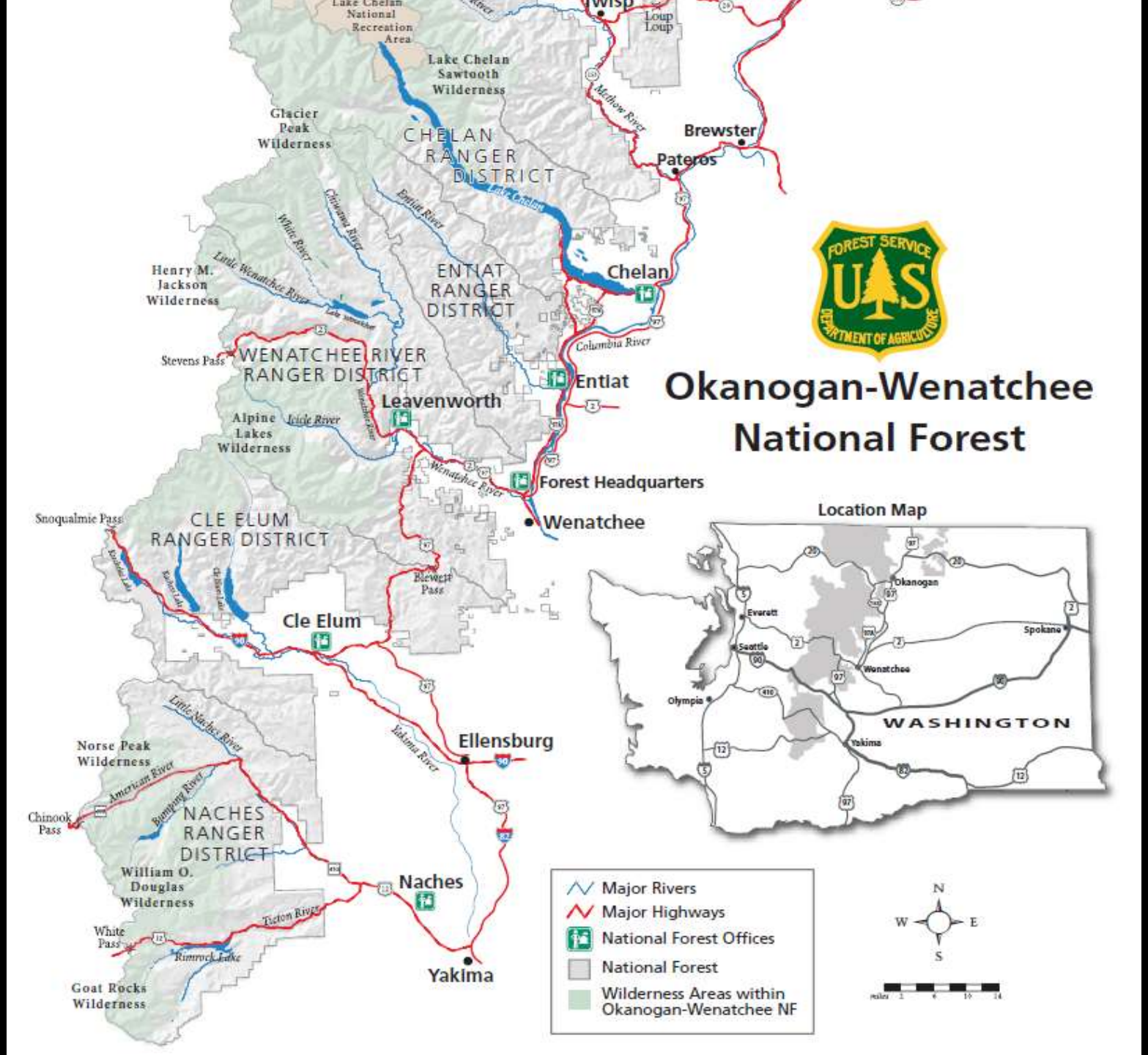


Photo by Adam Johnson

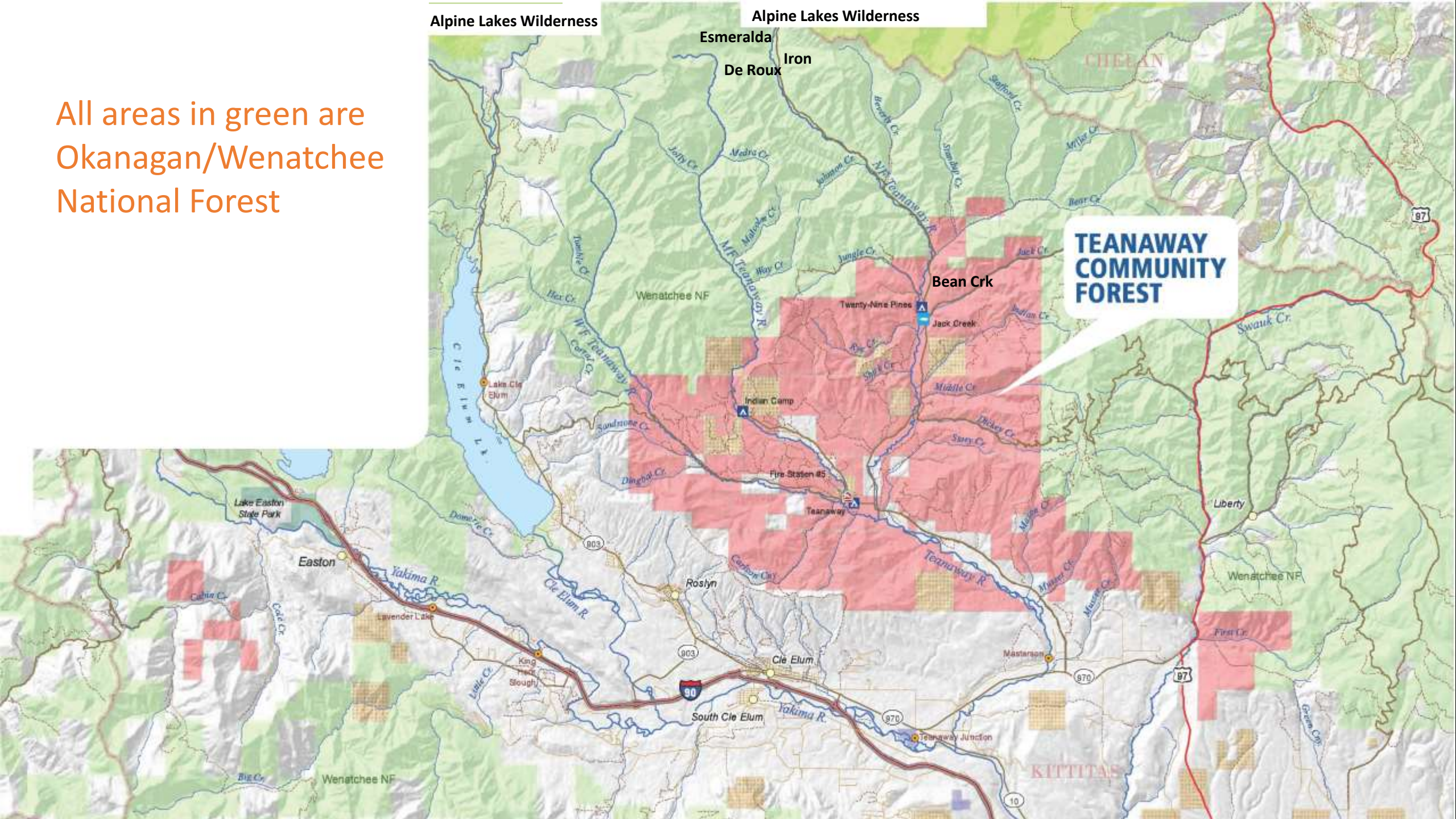
Teanaway History

Farming, grazing, and timber harvest became important within the watershed as European immigrants and other settlers began moving into the area in the late 1800s. Sheep and livestock grazing occurred, and at various times, several thousand head of livestock grazed in the area. Timber harvest within the forest began early in the 1900s.

Where are we going?



All areas in green are Okanagan/Wenatchee National Forest




Mt Stuart dominates the upper elevation views

Bean Creek Basin

Esmerelda Basin

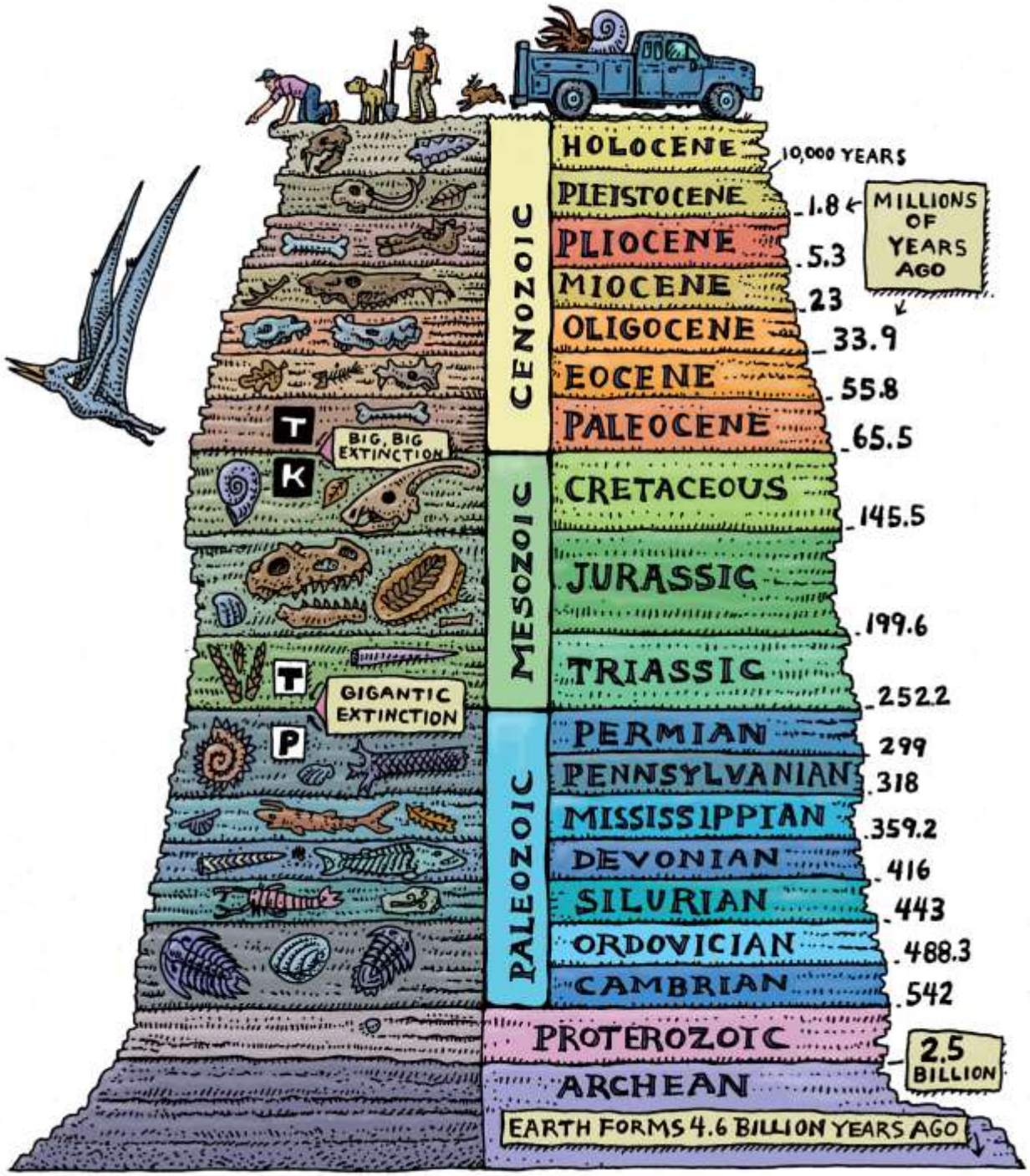
Swauk and Tronsen Ridge

Iron Peak

Don’t forget your loupes!

Geology

- The geology of the area is dominated by the Late Jurassic/Early Cretaceous Ingalls Tectonic Complex.
- This includes serpentinite and serpentinized peridotite as well as metasedimentary rocks, ultramafic, volcanic and intrusive igneous rocks
- Mt Stuart granite is 93 million years old and docked in it's present location around 55 million years ago. The serpentinite is 150 million years old and docked about the same time. The mystery is still HOW DID THEY GET THERE???



Geology

Serpentinite

- Grey-green to black rock with a waxy snakeskin like texture. Metamorphism of upper mantled rock which is ultramafic - dark colored rocks with a lot of magnesium and iron.
- Different type of metamorphism – heat and water rather than the typical heat and pressure. Pretty much underlies the entire ocean floor as these deep ultramafic magmas ooze up are are serpentinized by sea water.
- Made up of serpentine - the set of minerals in the serpentine group of minerals.

On Ingalls Peak—also known as “Don’t-step-on-it-too-slippery-rock!”

Photos by Karina V.

Geology

Photo by Matt Kurjanowicz

Trees Common in the Teanaway

Pinus ponderosa- Ponderosa Pine (3 needles)

Pinus albicaulis- Western White Pine (5 needles)

Abies grande-Grand Fir

Pseudotsuga menziesii- Douglas Fir


What is this tree?


What is this tree?

Tsuga mertensiana-Mountain Hemlock

Picea engelmannii-Engelman's Spruce

Photos by Ben Legler

Other trees:

Lodgepole pine
Alpine Fir
Whitebark Pine
Pacific Yew
Silver Fir
Western Larch

What is this tree?

What is this tree?

Photo by Emanuala Agosta

Make sure you return to the Teanaway in the fall to see the larches turn.

Photo by Matt Kurjanowicz

What is happening in our Forests Today

From USDA 2004 “Forest Health Assessment for the Okanogan and Wenatchee National Forests”

- The severity and magnitude of wildland fires have been exacerbated in recent years by several conditions:

1. Accumulations of dead wood
2. Development of dense forests on dry and mesic sites
3. Ongoing insect and disease epidemics
4. Cumulative effects of several years of drought

The Impacts of Fire on the Forest

The Table Mountain Fire in 2012 burned over 40,000 acres along Blewett Pass, including the area we will visit for Swauk Trail and Tronsen Ridge, where fire scars are still visible. The fire began in late summer and, despite fire fighting efforts, it burned until it rained in November.

The Impacts of Fire on the Forest

Lodgepole pine is a fire-dependent species, requiring wildfires to maintain healthy populations of diverse ages. The bark of the lodgepole pine is fairly thin, minimizing the tree's defense to fire; however, the heat of fire opens the cones to release the seeds

The Impacts of Fire on the Forest

This older lodgepole pine managed to escape devastation in the Table Mountain Fire. The ones in the background were not as fortunate

The Impacts of Fire on the Forest

What happens when fires are too hot?

Fire can be very damaging to natural areas. When fires burn too hot, due to accumulated fuel and climate change, the land may become scorched and plant life may struggle to regrow, negatively impacting wildlife and the riparian areas. (Jack Creek Fire 2017)

Photo by Matt Kurjanowicz

Ferns Common to The Teanaway

Polystichum lemmonii – Shasta Fern

Cryptogramma crispa – Rock-brake or Parsley Fern

Aspidotus densa-
Indian Dream Fern

Birds Common in The Teanaway

Western Tananger

Dark-eyed junco

Pine Siskin

Chipping Sparrow

Evening Grosbeak

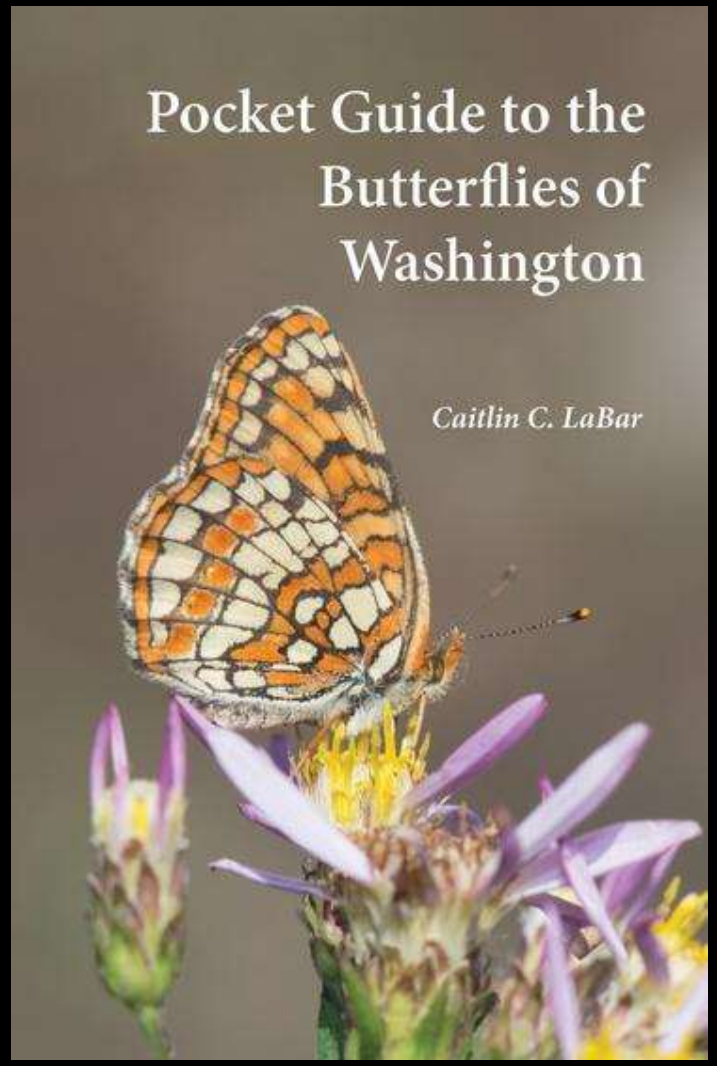
Photos from the Audobon website

Butterflies Common In the Teanaway

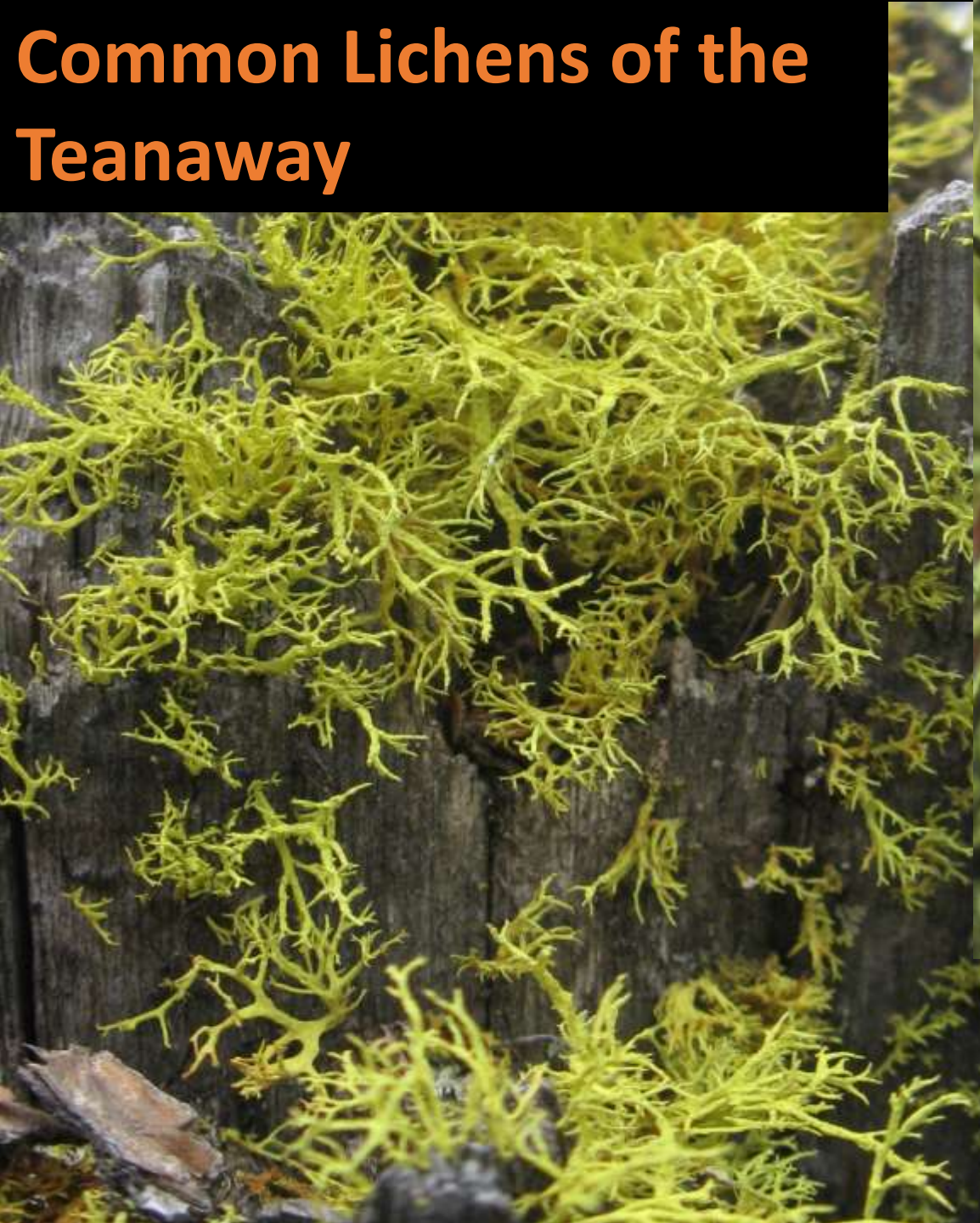
Anglewing or Comma

Morningcloak
and Blues

Butterfly charts are up on the course page.



Common Lichens of the Teanaway



Letharia Vulpina-Wolf Lichen

Letharia Columbiana-Wolf Lichen

Witch’s Hair – Alectoria sp. - Fruticose

Lichen charts are up on the course page. Also keep eye out for the workshop that Stewart Hougen and Gary Brill will teach for the Mountaineers this winter on mosses and lichens

Animals In the Teanaway

Wolf

Deer

Mountain goat

Elk