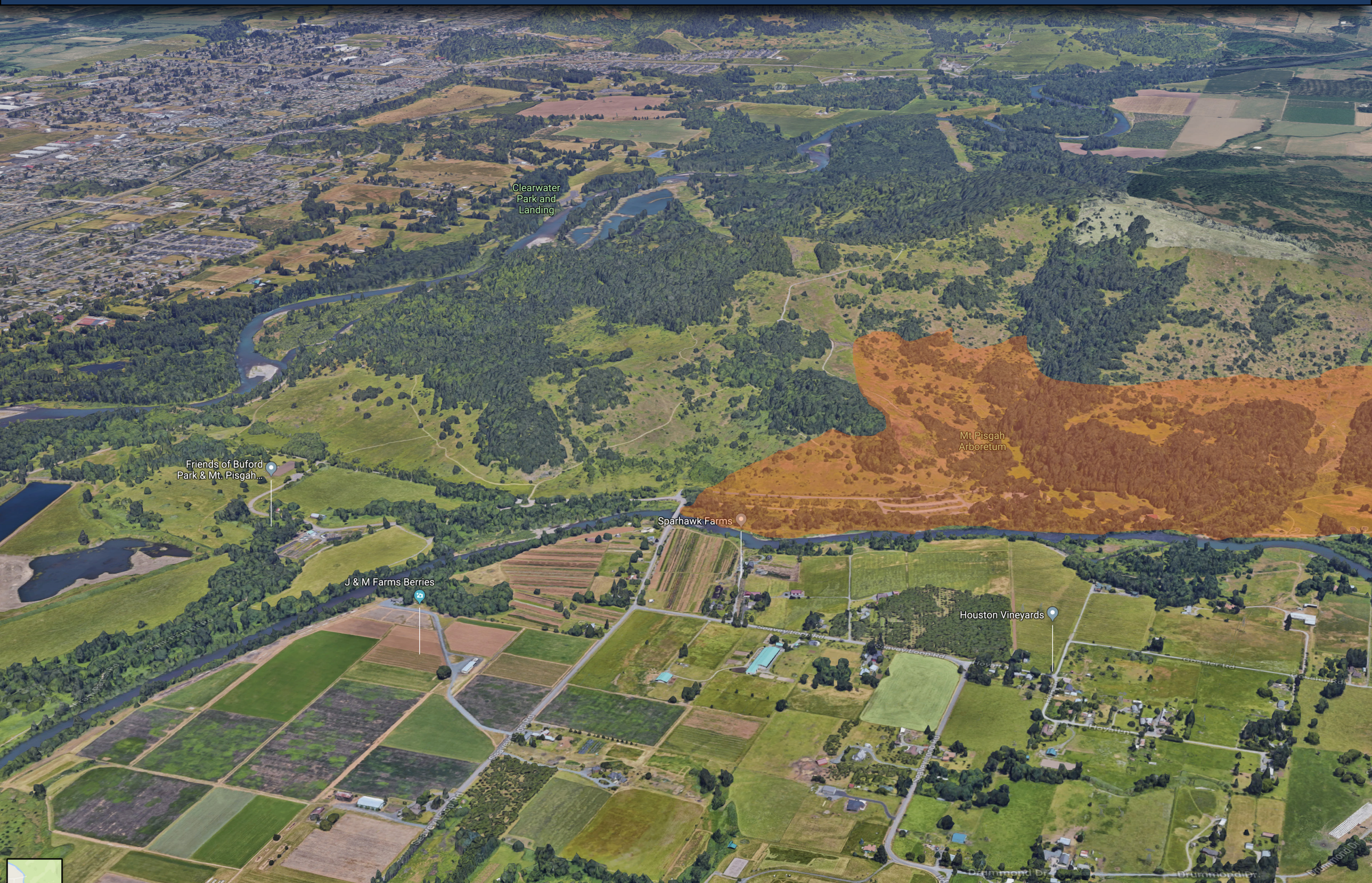
LEARNING FROM THE LAND:
THE ROLE OF ENVIRONMENTAL EDUCATION IN PRESERVING PRAIRIE-OAK HABITATS



Mount Pisgah Arboretum

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Mount Pisgah Arboretum, Eugene, OR

CONTEXT:
209-ACRE NATURE EDUCATION FACILITY LOCATED IN HOWARD BUFORD RECREATION AREA



CONTEXT:
AN EDUCATIONAL HUB IN A NETWORK OF NATURAL AREAS IN THE EUGENE-SPRINGFIELD REGION



THE IMPORTANCE OF ENVIRONMENTAL EDUCATION IN PROMOTING A CONSERVATION ETHOS



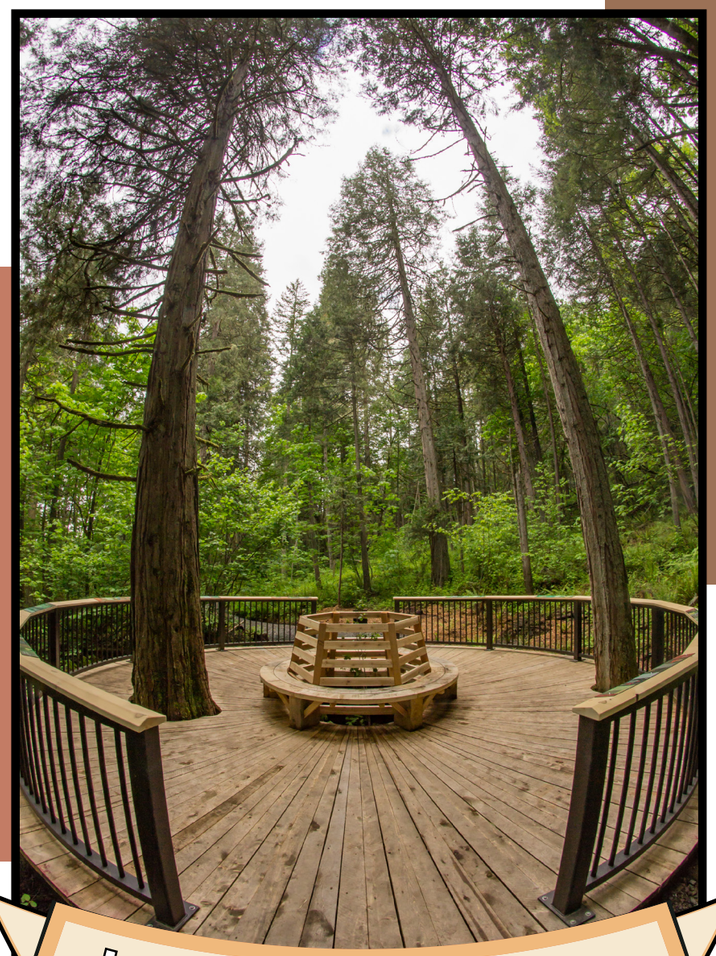
- Reconnecting people with the natural world.
- Cultivating a sense of place.
- Shaping visitor behavior.
- Laying the groundwork for sustained engagement.

SITE FEATURES



- MPA encompasses most Willamette Valley habitat types, including:
- Scrub-shrub wetland
- Fertile ground oak savanna
- Intact oak woodlands
- Wet and dry prairies (degraded)

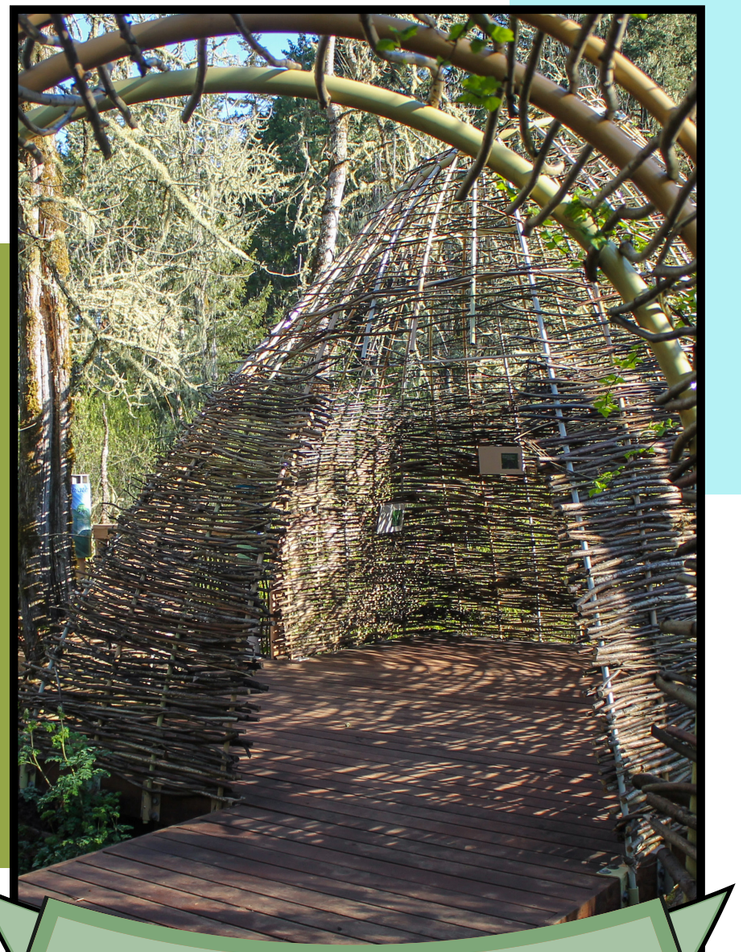
INTERACTIVE INTERPRETIVE EXHIBITS



Incense-cedar



Oak Woodlands



Wetlands

THREE OF EIGHT COMPLETED

OAK WOODLANDS EXHIBIT



Mount Pisgah's oak woodlands are high visibility, with much of the area's nearly 30 miles of trails cutting through this habitat type.

OAK WOODLANDS EXHIBIT



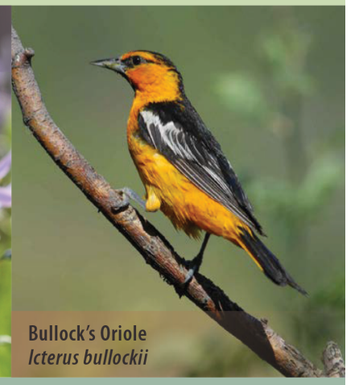
A buzz, a hum, a whir of bugs signals the peak of

spring

in the oak woodlands.

Mining bees hurry between flowers, carrying pollen back to their underground nests. Propertius duskywing butterflies sip camas nectar and chase each other through woodland openings. They lay their eggs on swelling oak buds, as their caterpillars will feed only on fresh oak leaves.





As the oaks spread their leaves, Bullock's orioles return from their wintering grounds in Central America to feed on duskywing caterpillars and the hundreds of other insects who make their home in the oak canopy.



The oak woodland thrives in the heat of

summer

A western fence lizard skitters up an oak to avoid a hunting racer snake. The lizard has finished basking in the morning sun, raising her body temperature enough to be able to hunt and escape predators. Adapted to summer drought, oak leaves have developed a waxy coating to prevent excess water loss.





Tiny wasps have injected their eggs into the underside of an oak leaf, stimulating it to form balls of plant tissue known as galls. These speckled galls provide shelter and food for the oak gall wasp larvae as they grow within.



For some, **autumn**
is a time of harvest.
For others it is a time of renewal.





Acorns have ripened through summer, and western gray squirrels begin to harvest the rich food source. Competing with jays to collect acorns to store through the lean winter months, the squirrels travel the network of branches at the top of the canopy as they move from tree to tree.



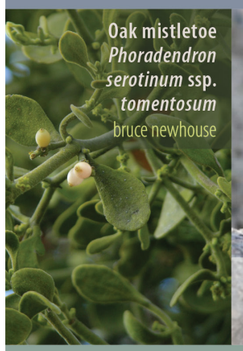


As rusty brown oak leaves drift to the ground, the canopy cover is reduced. More light reaches the mosses and lichens on the oak branches, and they begin to grow again as the rain returns.



Though the oaks are dormant, the **winter**
canopy is full of life.

Pale green lichens glow in the soft golden light of a December sunset. Black-capped Chickadees and White-breasted Nuthatches dart among the oak canopy, feeding on insects living in the lichens. The long strands of fishnet lichen are an important winter food source for black-tailed deer.





At the top of the canopy, the partially parasitic oak mistletoe is full of berries. Western Bluebirds spend their winter in oak woodlands, feeding on the mistletoe berries and spreading the seeds to other trees as they move about the canopy.

OAK WOODLANDS EXHIBIT



Propertius duskywing
Erynnis propertius

Mining bee
Andrena spp.

A buzz, a hum, a whir of bugs signals the peak of **spring** *in the oak woodlands.*

Mining bees hurry between flowers, carrying pollen back to their underground nests. Propertius duskywing butterflies sip camas nectar and chase each other through woodland openings. They lay their eggs on swelling oak buds, as their caterpillars will feed only on fresh oak leaves.



Tall camas
Camassia leichtlinii

Bullock's Oriole
Icterus bullockii

As the oaks spread their leaves, Bullock's orioles return from their wintering grounds in Central America to feed on duskywing caterpillars and the hundreds of other insects who make their home in the oak canopy.



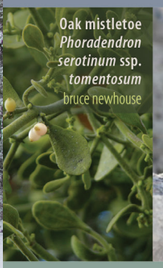




Black-tailed deer
Odocoileus hemionus columbianus
walter siegmund

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Oak mistletoe
Phoradendron serotinum ssp. *tomentosum*
bruce newhouse



White-breasted Nuthatch
Sitta carolinensis aculeate
cary kerst

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OAK WOODLANDS EXHIBIT



Harvest brodiaea loses its leaves
before it blooms in early summer to prevent
water loss through transpiration.

harvest brodiaea

Brodiaea elegans ssp. *hooveri*



photo credits: kurt thorson (top); august jackson (bottom)



fork-tailed bush katydid

Scudderia furcata

The nymphs of fork-tailed bush katydids can
often be found feeding on the purple
flowers of harvest brodiaea.

photo credits: august jackson (top); kurt thorson (bottom)

OAK WOODLANDS EXHIBIT





The Canopy Collector provides an opportunity to identify some of the prominent life in the canopy.



OAK SAVANNA EXHIBIT



- The oak savanna is our flagship habitat.
- The Arboretum's savanna contains a number of legacy trees.
- This will be one of our most accessible exhibits.

OAK SAVANNA EXHIBIT



- Savanna ecology was shaped by historic indigenous management practices.
- The exhibit will highlight Kalapuyan traditional ecological knowledge, and examine the role of fire in the savanna ecosystem.
- This story is not well known among the general public.

OAK SAVANNA EXHIBIT



- This story challenges the Human-Nature dichotomy.
- Why won't land managers "let nature take its course?"
- Understanding the history of North American environments puts stewardship in context.

OAK SAVANNA EXHIBIT

Around the world, savannas are maintained by fire. With natural fires uncommon, most savanna in the Willamette Valley would have transitioned to forest without human intervention. The culture of the Kalapuya was tied to the cycles of life in the savanna, and the ecosystem was sustained through their use of fire.

Willamette Valley savannas support an abundance of life that is at risk of disappearing. The plants and animals in the savanna have evolved with humans as a crucial part of the ecosystem. Community groups across the valley are working to preserve and restore remaining savannas, and land managers are beginning to incorporate Native peoples' traditional ecological knowledge into their practices. Preserving our savannas will take a commitment from the human community, as it has for thousands of years. **The oak savanna will not exist without us.**