

# Women's Food and Climate Change



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Confederated Tribes of Umatilla Indian Reservation

Climate Change Impacts on Traditional Foods

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# Department of Natural Resources

## Mission Statement

To protect, restore, and enhance the **First Foods** - *water, salmon, deer, cous, and huckleberry* - for the perpetual cultural, economic, and sovereign benefit of the CTUIR.

We will accomplish this utilizing traditional ecological and cultural knowledge and science to inform:

- 1) population and habitat management goals and actions; and
- 2) natural resource policies and regulatory mechanisms.

# Extending the Table

Serving Order

1

Water

2

Salmon

Chinook

Coho

Sockeye

Steelhead

Lamprey

Mussels

Trout

Whitefish

Suckers

3

Deer

Mule Deer

RM Elk

WTD

Bighorn

Mtn Goat

Bison

Moose

4

Cous

Celery

Camas

Bitterroot

5

Huckleberry

Chokecherry

Men's Foods

Women's Foods

# Women's Food



# Issues

- Loss of habitat
  - Land conversion
  - Plant Community transition
    - overgrazing, invasive species
  - Land management (i.e. fire suppression)
  - Energy Development
- Access to gathering areas
  - Ownership, roads, locked gates, fencing
- Competition
- *Climate Change*

# "Food Associated" Culture

Access

Teaching

Learning

Harvest

Preparation

Consumption

Celebration

Sharing

Care (Reciprocity)

First Foods



Physical +  
Ecological  
Processes



# Environmental change and resilience



# Predictable Weather Patterns



# First Food Celebrations

Celery Feast

Root Feast

Huckleberry Feast



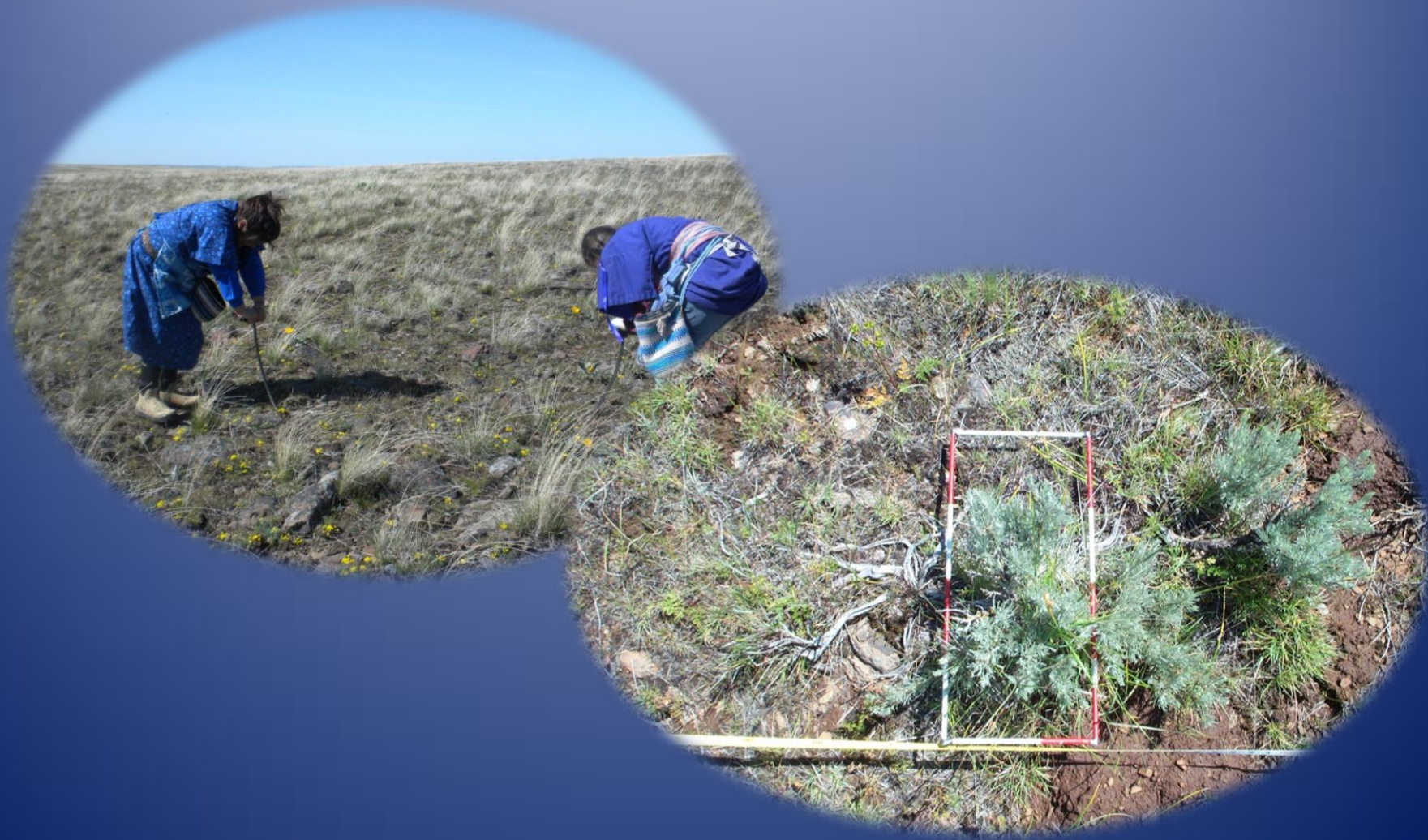
# Traditional Phenological Knowledge



# Climate affects all plants

- Physiological responses
- Plant community interactions
  - Diversity and distribution

# What Food Gathers Observing



# Species specific response

The change of  
cáwš sites to  
either other  
forbs or invasive  
grasses



# Dormancy

## Productivity

- Low or no berry production



# Unpredictable Weather

"At beginning of harvest time, we would worry about snow or rain when gathering, now we don't know what to expect...either unusual warm temperatures or wet conditions"

# Shorter winters and less snow



The branches on  
huckleberry bushes  
appearing stripped of  
leaves and berries

# Altered flowering time

pyací is collected at  
vegetative stage  
before flowering



# Shorter Gathering Season

"My mother and I  
could collect cáwš  
until August"

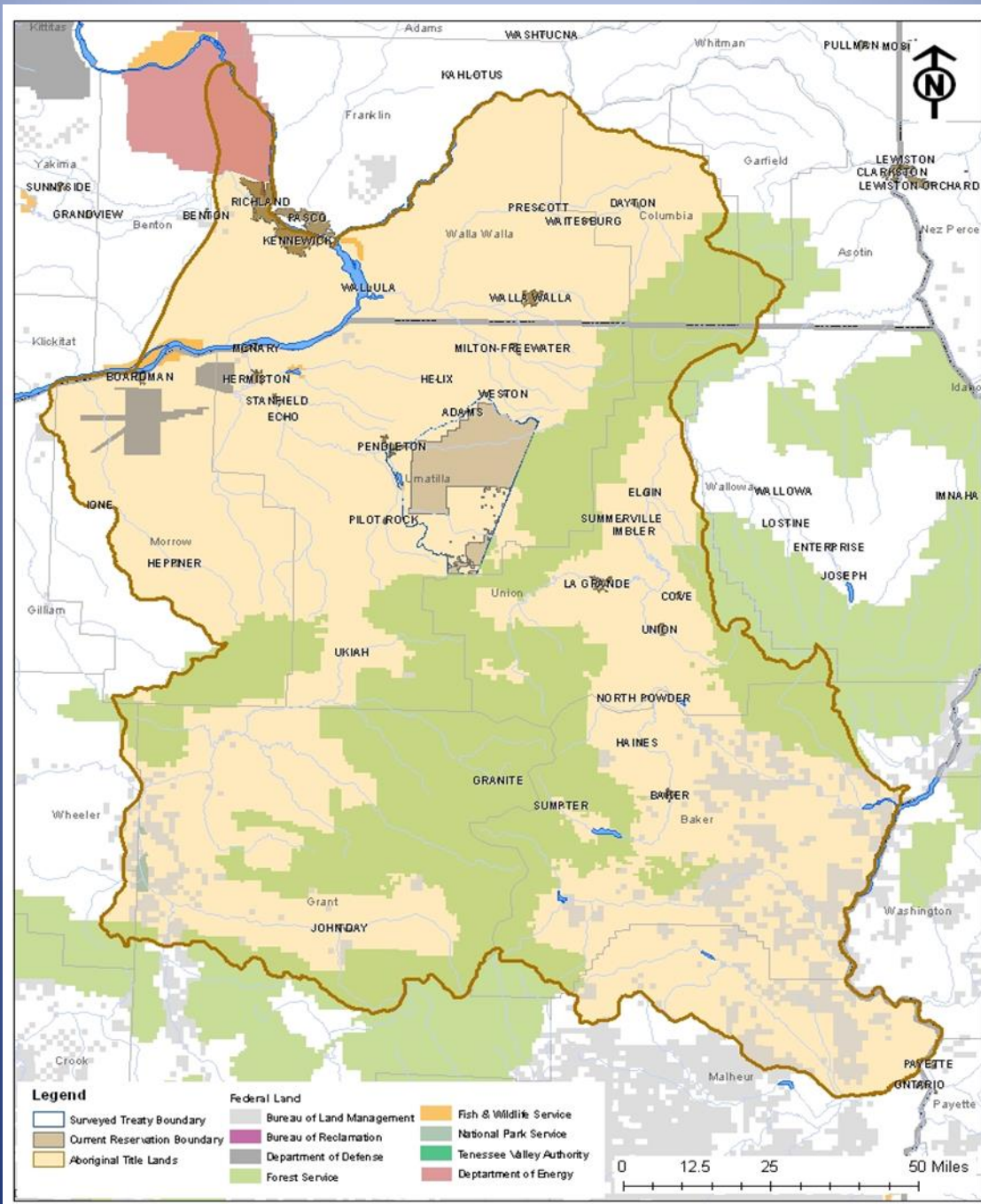


# Plant Community Interactions



Gathering areas for  
Women's food  
increase in  
importance if/when  
food distribution  
changes

# Women's Food Assessment



# Partnership with Federal Agencies

U.S. Forest Service

Bureau of Land Management

- Umatilla National Forest

- Vale District

# First Food Modeling

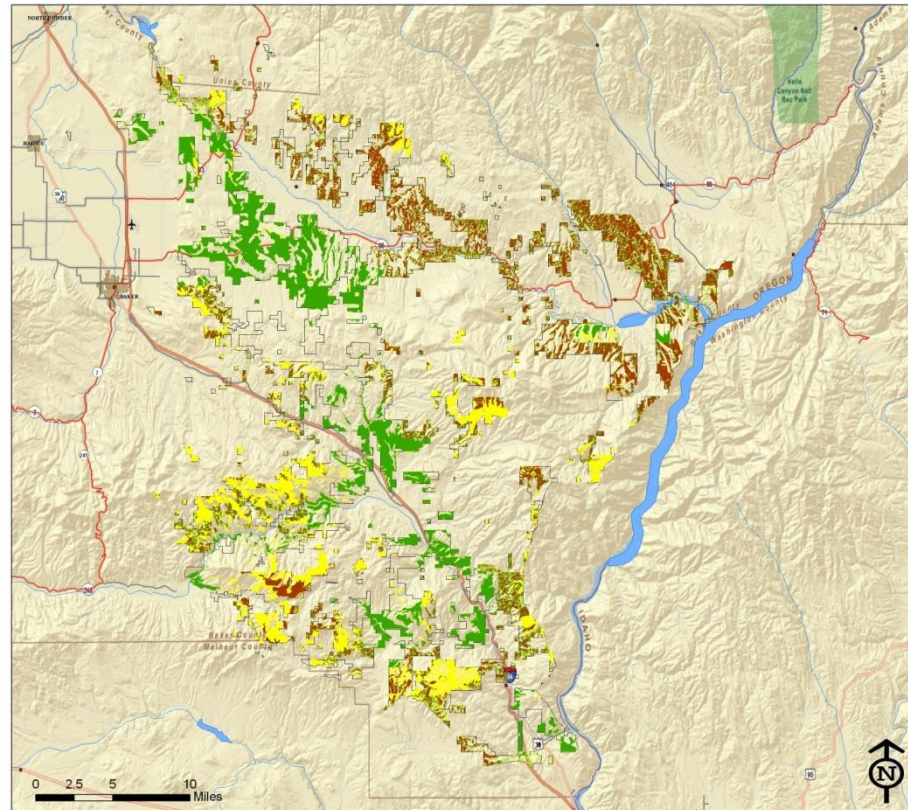
- CTUIR utilized ArcGIS to develop a landscape level model that combines derived geographic information with field inventory data to identify habitat that support 5 food plants

# Goals and Objectives

- Preserve, manage and restore gathering locations throughout the Ceded lands for Tribal Members
- Identify additional gathering locations for Tribal members on USFS and BLM properties within CTUIR Ceded Land

- Develop informed knowledge on the distribution and condition of 'selected species' throughout the Ceded area.
- Develop coordinated management of 'selected species' with both federal agencies, USFS and BLM.

# BLM Project



# Data Sharing Agreement

The use of this information is protected by data sharing agreements drafted by the Tribe and signed by the USFS and BLM

# Collaborative Efforts

CTUIR is continuing collaborative effort to develop plant community information and GIS datasets about three culturally important plant species which are impacted by land use, invasive species, and climate change.

# Enhancement of collaboration

- Conservation assessment on rigid sagebrush plant communities that support First Foods



# Huckleberry

- **Traditional Use Report** -the conditions and components of huckleberry stands within the Blue Mountains, concerns about the impacts of climate change on productivity and descriptions of tribal management for productive huckleberry stands
- **Literature Review** - inform the gap in scientific knowledge about huckleberry occurrence and management for productivity

# Huckleberry continued

- Collaborative development of distribution maps through compilation of existing USFS data on current and potential distribution of huckleberries
- Evaluate the effects of alternative management and climate change scenarios for huckleberry

# First Food Management

- Reciprocity (First Food Promise)
- Ecosystem resilience and sustainability
- Maintaining Access

# Acknowledgements

## Food Gathers

## CTUIR Staff

- Stacy Schumacher, GIS Program

## Partners

- USFS - Umatilla National Forest
- BLM - Vale District