Periodic Status Review

Columbian White-Tailed Deer and Taylor's Checkerspot Butterfly



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Wildlife Program, Diversity Division

WAC Requirement

- Currently 45 listed species
- WAC 232-12-297 requires that we review the status of listed species every five years to determine if they require:
 - Uplisting (e.g., sensitive to endangered)
 - Downlisting (e.g., endangered to threatened)
 - Delisting (i.e., removal from list)
 - No change in status

As Defined by WAC 232-12-297

- 1) Endangered: "seriously threatened with extinction throughout all or a significant portion of its range within the state"
- 2) Threatened: "likely to become an endangered species within the foreseeable future throughout a significant portion of its range within the state without cooperative management or removal of threats"
- 3) Sensitive: "vulnerable or declining and is likely to become endangered or threatened in a significant portion of its range within the state without cooperative management or removal of threats"
- 4) None of the above: does not need to be listed



PSR Process

- Press Release Feb 2014, 2015, 2016- One year for interested parties to contribute information:
 - Species demographics
 - Habitat conditions
 - Threats and trends
 - Conservation measures
 - New data since last status review



- Documents prepared with all contributed information
- WDFW biologist, then external expert review
- 90 day public comment period
- Comments integrated and responses compiled
- Periodic status reviews finalized

Today





- Separate presentations on:
 - Columbian White-Tailed Deer (Hannah Anderson)
 - Taylor's Checkerspot (Ann Potter)
- Time for questions after each species
- Decisions

Columbian White-tailed Deer Periodic Status Review



Hannah Anderson Wildlife Program, Diversity Division

Natural History

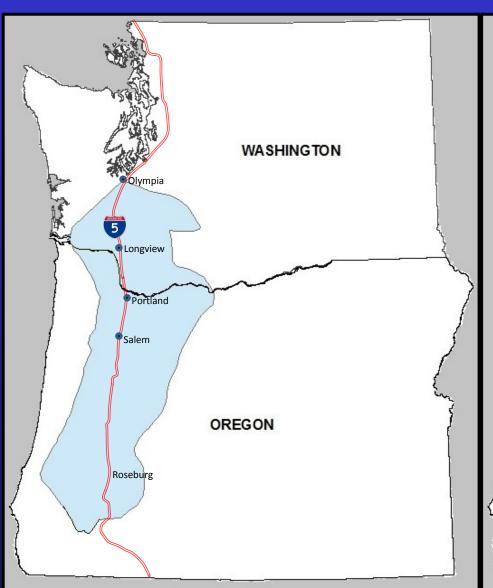
- Subspecies of whitetailed deer
- Pacific Northwest endemic
- Appearance almost indistinguishable from Northwest White-tailed Deer

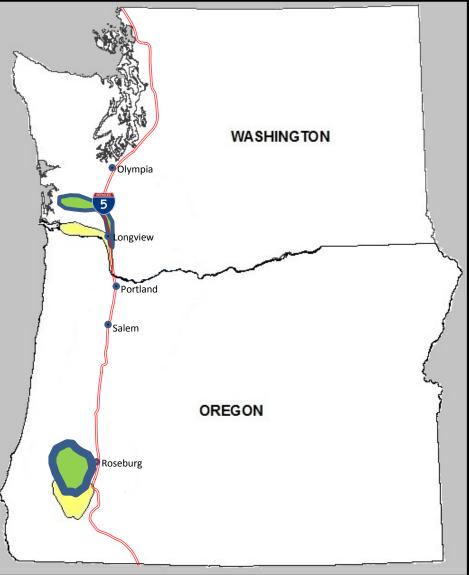


Photo courtesy of Al Clark

Historical Distribution

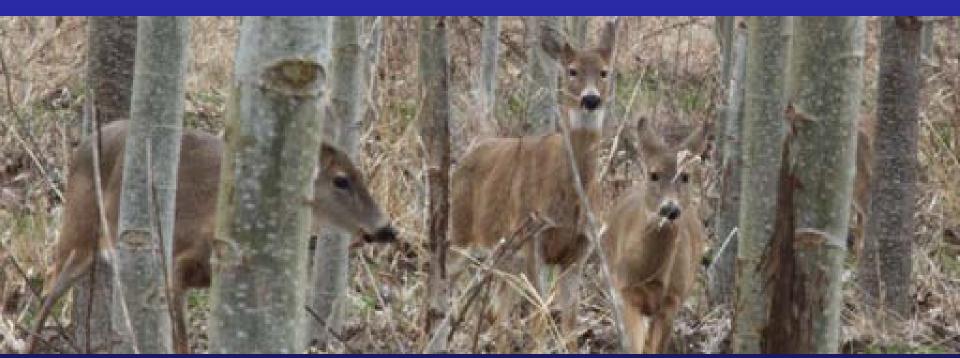
Current Distribution



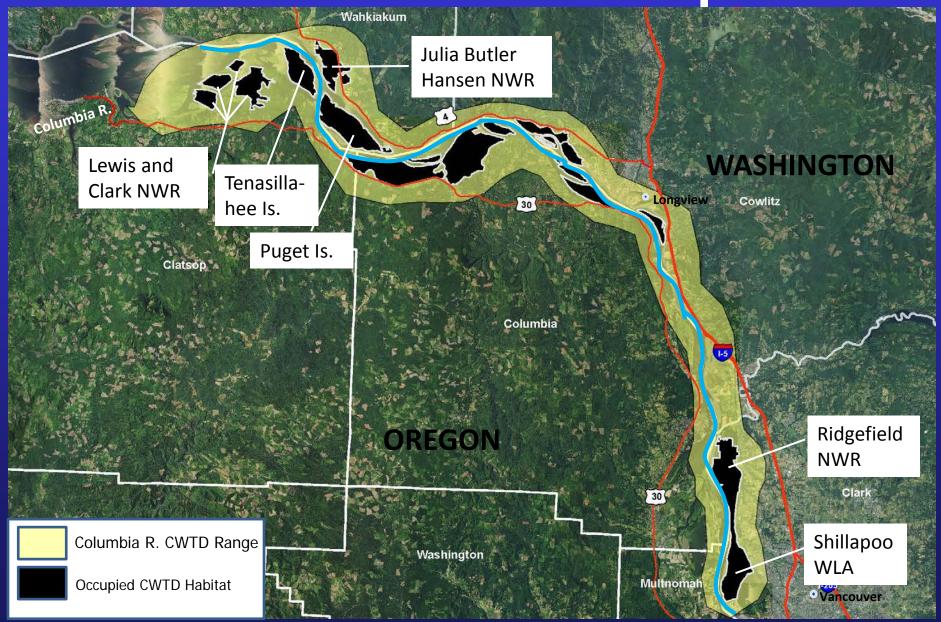


Legal Status

- Federally Endangered
- State Endangered in Washington
- State Endangered in Oregon



Columbia River CWTD Population



Columbian White-tailed Deer Historical Habitat

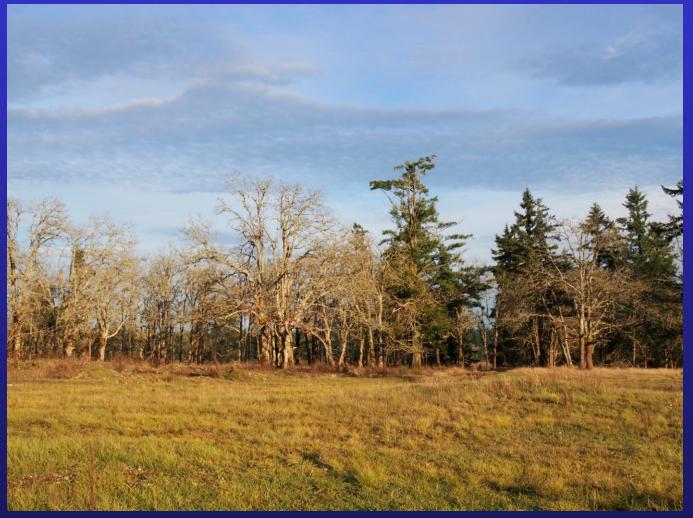


Photo courtesy of southsoundprairies.org

Columbian White-tailed Deer Current Habitat

- Open understory
- Prefer deciduous forest
- Avoid conifer forest
- Riparian



Photo courtesy of USFWS

Historical Population Status

- Historically abundant
- Near extirpated by 1900
- Est. 300 400 CWTD along lower Columbia River at ESA listing in 1973
- ~750 in 1984
- ~ 550 in early 2000s
- 2015 estimate at ~950

Habitat loss



Habitat fragmentation



Flooding and altered flood regimes



Interspecies relationships



Photo courtesy of USFWS



Photo courtesy of ODFW

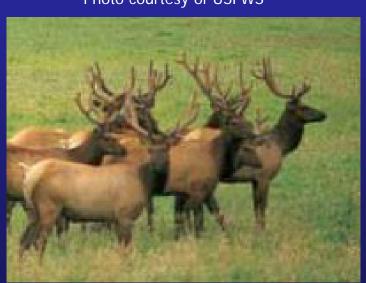
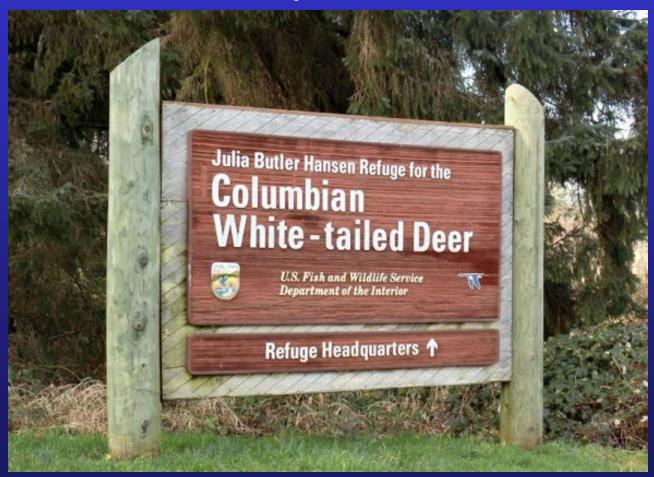


Photo courtesy of ODFW

Habitat protection



Habitat restoration



Photo courtesy of USFWS

Predator control



Photo courtesy of BLM

Translocations:

- 63 translocated to Tenasillahe Island
- 33 translocated to Mainland JBH
- 132 translocated to Upper Estuary Islands
- 58 translocated to Ridgefield NWR



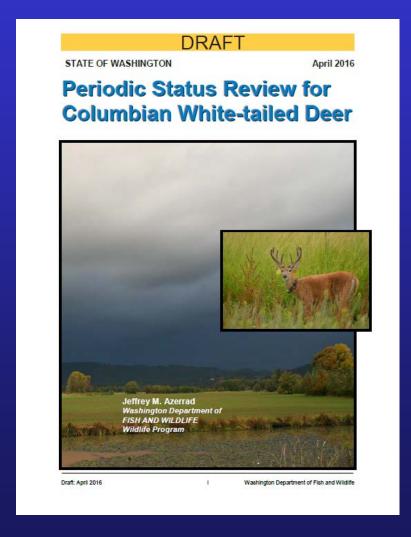
Photo courtesy of USFWS

Population Viability

- We know very little about the number and demographic make-up needed to:
 - Ensure population persistence
 - Inform management actions
- Population and Habitat Viability Analysis



Review and Recommendation



Recommend retaining endangered status for Columbian White-Tailed Deer

Public Comments

- 1 public comment
 - Urging continued classification as Endangered



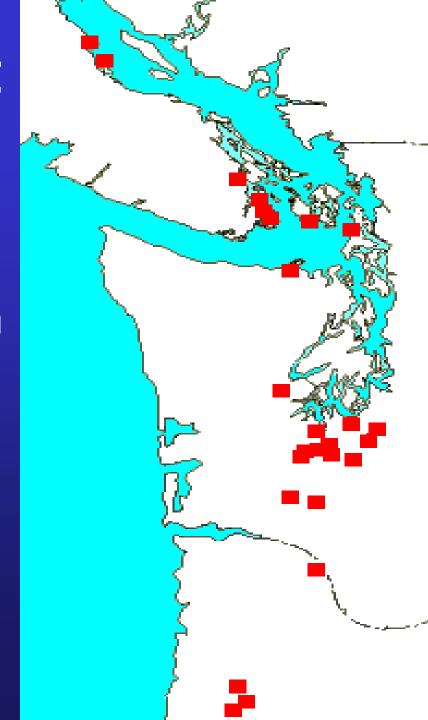
Questions





Pacific Northwest Endemic

- Range: Southeastern
 Vancouver Is to southern
 Willamette Valley, Oregon
- Historical distribution:
 - Documented on >80 sites
 - Currently outside of WA:Persists on 1 site inCanada, and 2 sites inOregon



TAYLOR'S CHECKERSPOT **EXTIRPATED EXTANT** STATUS UNKNOWN ECENT REINTRODUCTION

Washington Distribution

- Historically documented from >45 locations
- In 2006, at the time of state listing, known from 10 locations
- Since 2006: extirpated from 7 sites and found on 5 new sites
- Currently inhabits 8 sites in Washington

Listing Status

- 2006: Listed State Endangered
- 2013: Listed Federally Endangered
- Low number of populations
 & many are small and/or isolated
- Pattern of recent extirpations
- Habitat loss, degradation and fragmentation





Life Cycle Non-migratory Univoltine Post-diapause larva Long period of dormancy **February** Pupa March April May Adult June/ Specific July micro-habitat Egg requirements for each life stage Pre-diapause larvae

Habitat

- Habitat specialist: Inhabit rare, short-stature, grass and herbaceous vegetation systems
 - Low-elevation prairies
 - Montane meadows
 - Coastal bluffs and stabilized dunes
 - Forest clearings and balds



Larval and Adult Food Plants

Eggs/pre-diapause

Harsh Paintbrush



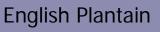
Blue-eyed Mary



Puget Balsamroot











Sea Blush





Sea Pink

Population Status

Clallam County

- 3 sites >1,000 butterflies
- 3 sites several hundred butterflies
- 1 site < 100 butterflies

South Puget Sound Region

- Single extant site 1,000-10,000 butterflies (Joint Base Lewis-McChord)
- Reintroductions underway at 4 sites

Limiting Factors

- 8 populations remain, many are small and isolated
- Habitat loss, degradation and fragmentation
 - Land conversion
 - Invasive species
 - Loss of fire





Limiting Factors

Other factors:

- Military Training
- English Plantain pathogen
- Weather/Climate



Conservation Efforts

- Active collaboration between state, federal, and non-profit partners
- Management plans for most occupied sites
- Voluntary protection for Forest Practices
- USFWS Recovery Plan recently initiated



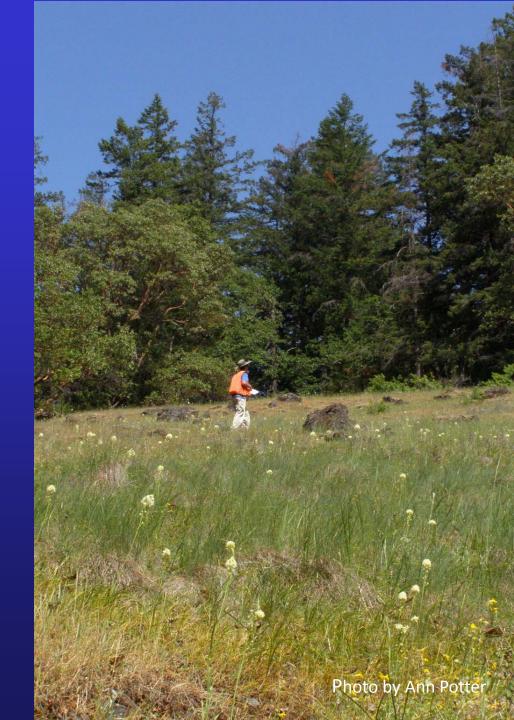
Surveys and Monitoring

Surveys

 Potential habitat to locate new sites

Monitoring

- Adult abundance
- Within site distribution
- Verify extirpations



Habitat Restoration Clallam County

Remove encroaching trees and shrubs





Habitat Restoration South Puget Sound region

Management to:

- Control invasive plants
- Use prescribed fire
- Re-establish natives



Reintroductions: South Puget Sound Region

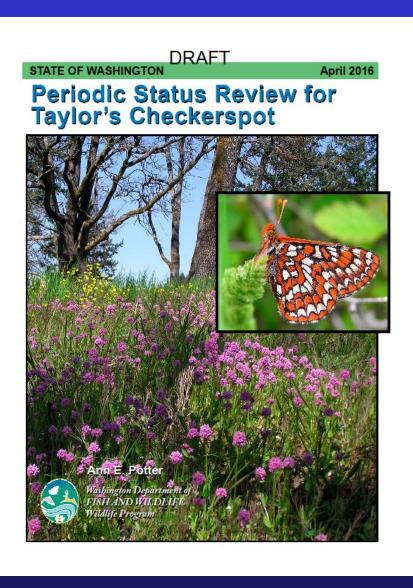
- Captive rearing underway: Oregon Zoo & Mission Creek Correction Center for Women
- Active reintroductions at 4 sites
- One site met establishment criteria in 2016







Summary Recommendation



- 8 populations remain, many are small and isolated
- Habitat loss: legacy and continued
- Continued threats
- Recommend retaining endangered status for Taylor's checkerspot

Public Comments

- 1 public comment
- Encouraged
 Commission to fund
 more surveys and
 habitat restoration



