State Wildlife Action Plan
2015 Update

Southern Cascades Ecoregion
Montane Conifer and Hardwood Forest
Western N. A. Temperate Grassland & Meadow

Redding SWAP Public Meeting

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Southern Cascades Ecoregion

- Southern Limit of Cascade Range in North America
- Bounded by Great Basin, Klamath Mountains and Sierra Nevada Range and Foothills
- Volcanic Mountains
- Mt. Shasta and Mt. Lassen
- Elevations 1500 - 14,000 ft.
- Public Lands: USFS, BLM, NPS
- Many unique species
Southern Cascades Ecoregion Habitats

- Montane Conifer forest*
- Temperate Grassland *
- Sagebrush Steppe
- Riparian Forest and Scrub
- Oak Woodlands
- Alpine zone
- Wetlands, fens, bogs
- Vernal pools

Photo: Ken Morefield, CDFW
Montane Conifer and Hardwood Forest

- Dominated by conifers with significant hardwoods component
- Widely distributed in Ecoregion
- Striking vegetation zonation with elevation
- Important conifers: ponderosa pine, jeffrey pine, sugar pine, douglas fir, incense cedar
- Important hardwoods: black oak, white oak, tanoak

Mt. Shasta from McCloud area
Photo: Richard Lis, CDFW
Species of Greatest Conservation Need

Sierra Nevada Red Fox
Photo: Jennifer Carlson, CDFW
Species of Greatest Conservation Need

Sierra Nevada Red Fox
Photo: Pete Figura, CDFW
Species of Greatest Conservation Need

Pacific Fisher
Photo: Pete Figura, CDFW
Species of Greatest Conservation Need

Mammals
- Snowshoe Hare
- Long-eared Myotis
- Ring-tailed cat

Marten
Photo: Kevin Smith, CDFW

Badger
Photo: Miller, NPS
Species of Greatest Conservation Need

Mountain Beaver
Photo: Dr. Lloyd Glenn Ingles, California Academy of Sciences

Northern Flying Squirrel
Photo: Dr. Lloyd Glenn Ingles, California Academy of Sciences
Species of Greatest Conservation Need

Reptiles & Amphibians
• Long-toed salamander
• Rubber Boa

Birds
• Golden Eagle
• Spotted Owl
• Yellow warbler
• Sooty Grouse
• Black swift

Western Tailed Frog
Photo: William Flaxington

Bald Eagle
Photographer Unknown
Environmental Stresses

- Changes in Natural Fire Regime
- Changes in Community Dynamics
- Changes in Biotic Interactions and Successional Processes
- Climate Change
- Increased Habitat Fragmentation
- Volcanic Activity

*Cypripedium montanum*
Photo: Richard Lis, CDFW

*Porcupine*
Photo: Ken Morefield, CDFW
Human-Caused Threats

- Forest Management Practices
- Mismanaged Grazing
- Recreational activities (summer and winter)
- Renewable Energy
- Fire and Fire Suppression
- Utility and Service Lines
- Invasive species
- Marijuana Growing

Photo: Brett Furnas, CDFW
Strategies

• Assess role of fire in community dynamics
• Research and management on fire return intervals
• Monitoring of species and populations
• Monitor spatial distribution and species composition and changes over time
• Outreach and education

Bear
Photo: Pete Figura, CDFW
Western North American Temperate Grassland and Meadow

- Relict distribution that is poorly understood
- Species composition poorly known
- May provide important transitional habitat
- Certain areas highly invaded by non-native grasses
- Cyclic burning of non-natives, increases invasion by non-natives

Photo: Richard Lis, CDFW
Species of Greatest Conservation Need

Species were selected based upon their probability to use this habitat for a significant part of lifecycle.

Mammals

- American badger
- California vole
- Brush Rabbit
- Black-tailed Jackrabbit
- Broad-footed mole
- Vagrant shrew

Black-tailed Jackrabbit
Photo: Photographer Unknown, California Academy of Sciences
Species of Greatest Conservation Need

**Birds**
- Northern harrier
- Savanna sparrow
- Sandhill crane
- Burrowing owl
- Long-eared owl
- Vesper sparrow

Sandhill Crane
Photo: Gerald and Buff Corsi, California Academy of Sciences
Species of Greatest Conservation Need

Reptiles

• Calif. Mtn. Kingsnake
• Gopher snake

Gopher Snake
Photo: Alden M. Johnson California Academy of Sciences

Calif. Mountain Kingsnake
Photo: John H. Tashjian, California Academy of Sciences
Environmental Stresses

Changes In:

• Community structure and composition
• Spatial distribution
• Biotic interactions and community dynamics
• Natural fire regime
• Successional processes

Pronghorn Antelope
Photo: Richard Lis, CDFW
Human-Caused Threats

- Revegetation with Non-natives
- Mismanaged Grazing
- Annual or Perennial Non-timber Crops
- Fire suppression—invasion by native trees (juniper, ponderosa pine)
- Invasive Annual Grasses

Mule Deer
Photo: Richard Lis, CDFW
Strategies

- Mapping current area and extent
- Estimate historic extent
- Assess current connectivity and potential historic connectivity
- Develop baseline data of species composition, evaluate community structure
- Determine non-native species composition and effects on target
- Assess role of fire in community dynamics.

Bunchgrass
Photo: Richard Lis, CDFW
Great Blue Heron
Photo: Ken Morefield, CDFW