



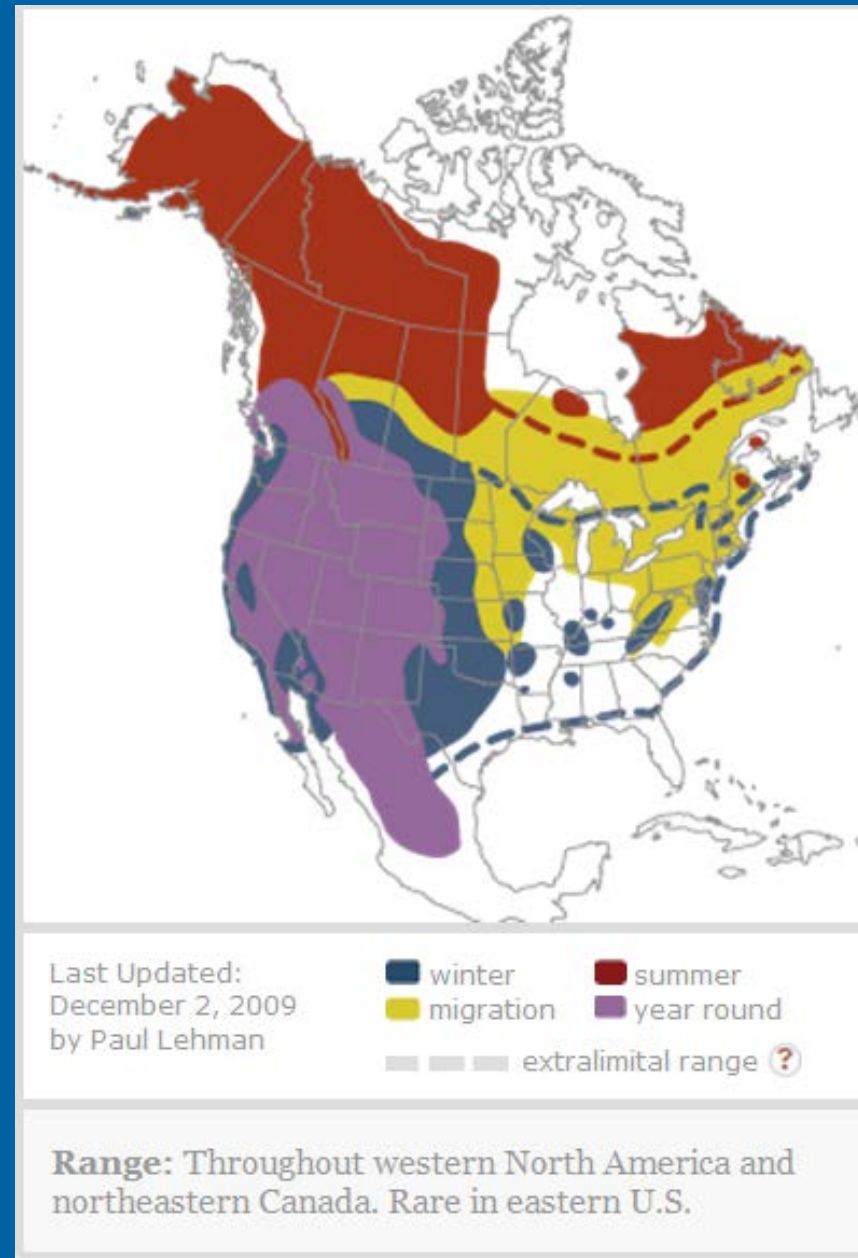
Research Supporting Golden Eagle Management: Status and Updates

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USGS Work...

- Supports DOI Goal: Achieve best outcome for wildlife and renewable energy development
- Focuses on Golden Eagles and Renewable Energy (USGS science priority)
- Is often scalable up and down (local to regional to national)
- Crosses jurisdictional boundaries
- Includes:
 - Occurrence, population status, demography
 - Risk analysis
 - Habitat modification and loss
 - Monitoring
 - Mitigation and adaptive management



National scale, locally applicable



- Predictive Models
 - Fatality estimation
 - Effects of “take”
 - Habitat occupancy

- Standardized and Scalable Survey Methods
 - Distribution and status
 - Optimize detection probability
 - Adaptive management



Golden Eagle Monitoring Protocol for the DRECP

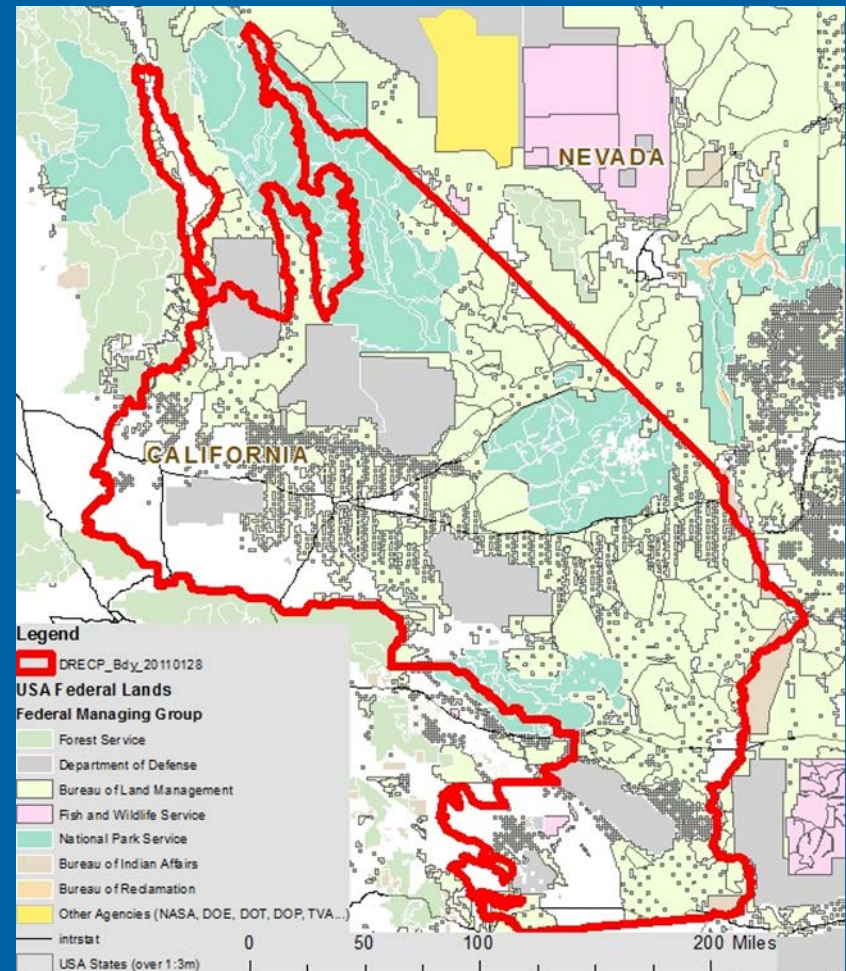


Objective:

- Develop survey designs and field procedures

Status:

- In development
- Expected Completion: Spring 2015



Map courtesy of DRECP

Demography of Golden Eagles around the Altamont Wind Resource Area



Objectives:

- Demographic model
- Age-structured movements and habitat use
- Estimation of pair abundance

Status:

- Data collection and analysis
- Expected Completion: Late 2014



CA-NV Specific Studies

Assessing Food Habits and Prey Availability for Golden Eagles in the Mojave Desert

Objectives:

- Distribution and abundance of prey species
- Food habits
- Nesting success

Status:

- Field data collection underway
- Expected Completion: Spring 2016



Photo courtesy of K. Longshore, USGS

Geospatial Analysis of Current Golden Eagle Population and Habitat Condition



Photo courtesy of the U.S. FWS

Objectives:

- Historic sightings and nest locations
- Nest site suitability map
- Mojave-wide view of Golden Eagle habitat

Status:

- Geospatial database mostly complete
- Maps and model: In development
- Expected Completion: Summer 2014

Assessment of Golden Eagle Prey (Black-Tailed Jackrabbit) Historical Data in the Mojave Desert

Objectives:

- Provide database on distribution and abundance
- Provide jackrabbit ecology annotated bibliography

Status:

- Database in development
- Draft manuscript completed
- Expected Completion: Summer 2014



Photo courtesy of K. Longshore, USGS

CA-NV Specific Studies: Future Work



Assessment of Spatial Use, Home Range, and Habitat Use of Golden Eagles in the Mojave Desert

Objectives:

- Characterize seasonal home ranges and habitat use
- Relate habitat use and movements with prey availability and other factors (land form/use)

Site occupancy, nesting success, movement behavior, and genetic structure of Golden Eagles in Western San Diego County, CA

Objectives:

- Survey and monitoring tools
- 3D space-use model
- Evaluation of genetic distinctiveness



