Western Golden Eagle Conservation Team

California-Nevada Golden Eagle Working Group Update November 2015

Brian Woodbridge, Coordinator

Western Golden Eagle Conservation Team

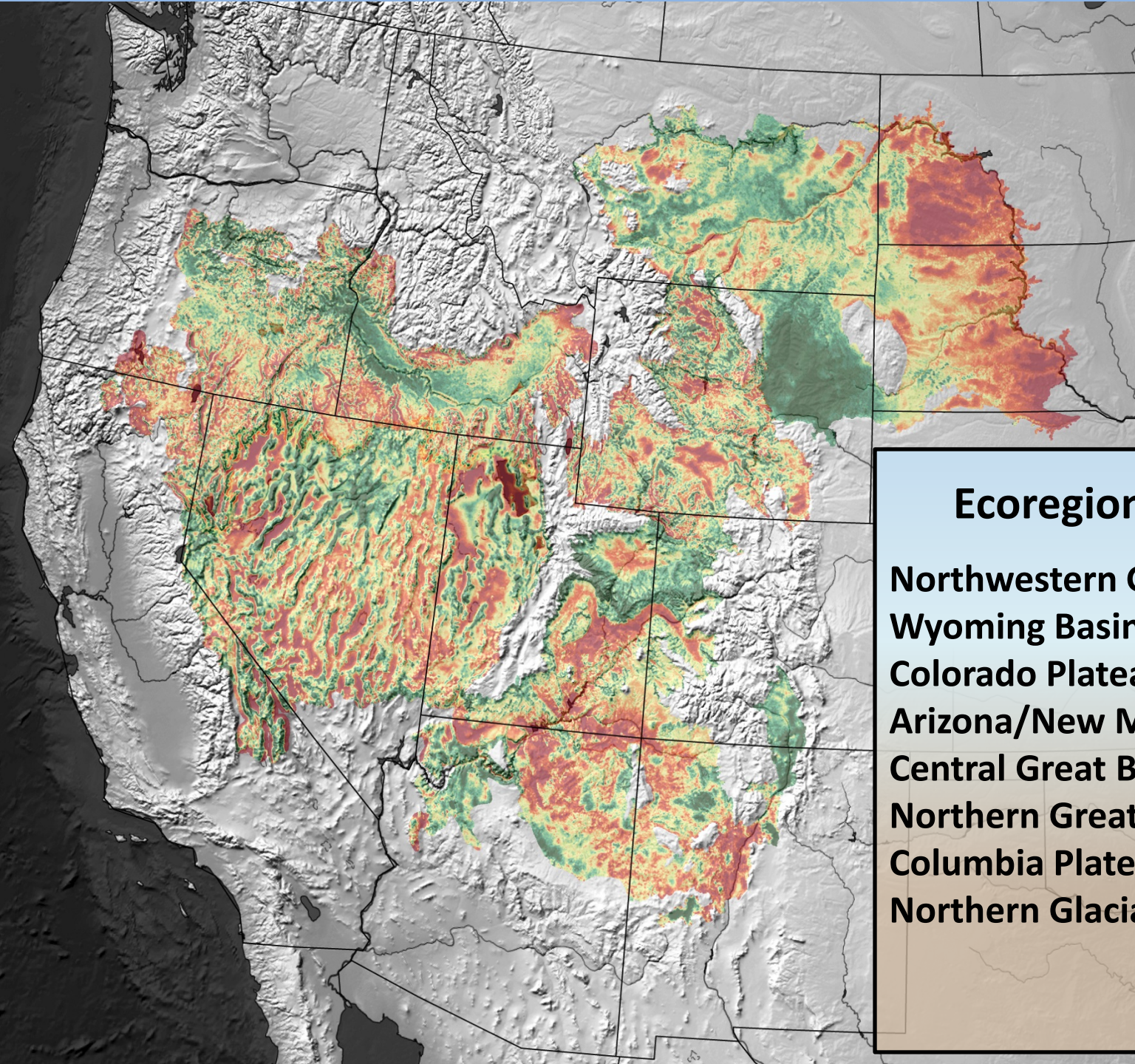**U.S. Fish and Wildlife Service, Yreka, CA**

2015-2016 Update

- In FY 2016 WGET downsizing to 4 FWS staff plus coordinator

- Continued funding for projects with cooperators

- Cooperative Ecosystem Study Unit agreements with University of Nevada, Reno; Humboldt State U., Boise State U. and Colorado State U.

- 37 ongoing projects

- Over 20 presentations at 2015 RRF Conference

I. Predictive Models of Golden Eagle Breeding Habitat

Ecoregional Models

Northwestern Great Plains
Wyoming Basin
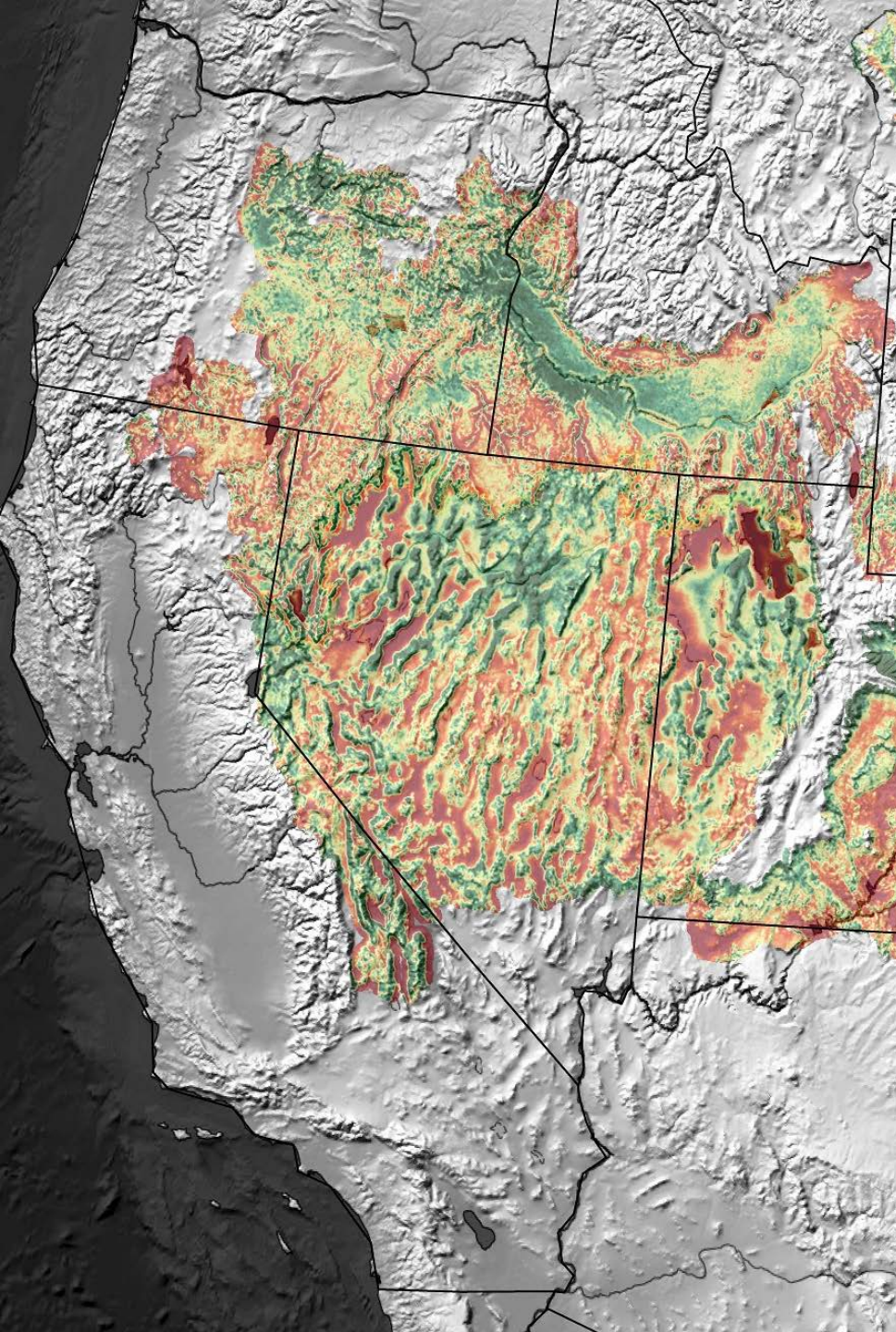**Colorado Plateau**
Arizona/New Mexico Plateaus
Central Great Basin
Northern Great Basin
Columbia Plateau*
Northern Glaciated Plains*

Breeding Habitat Models
California & Nevada

Northern Central Great/Snake River Plain Ecoregion

Central Great Basin Ecoregion

Draft models
Expert review workshops: Reno, Salt Lake City, Boise, Portland

Revised models - November 2015

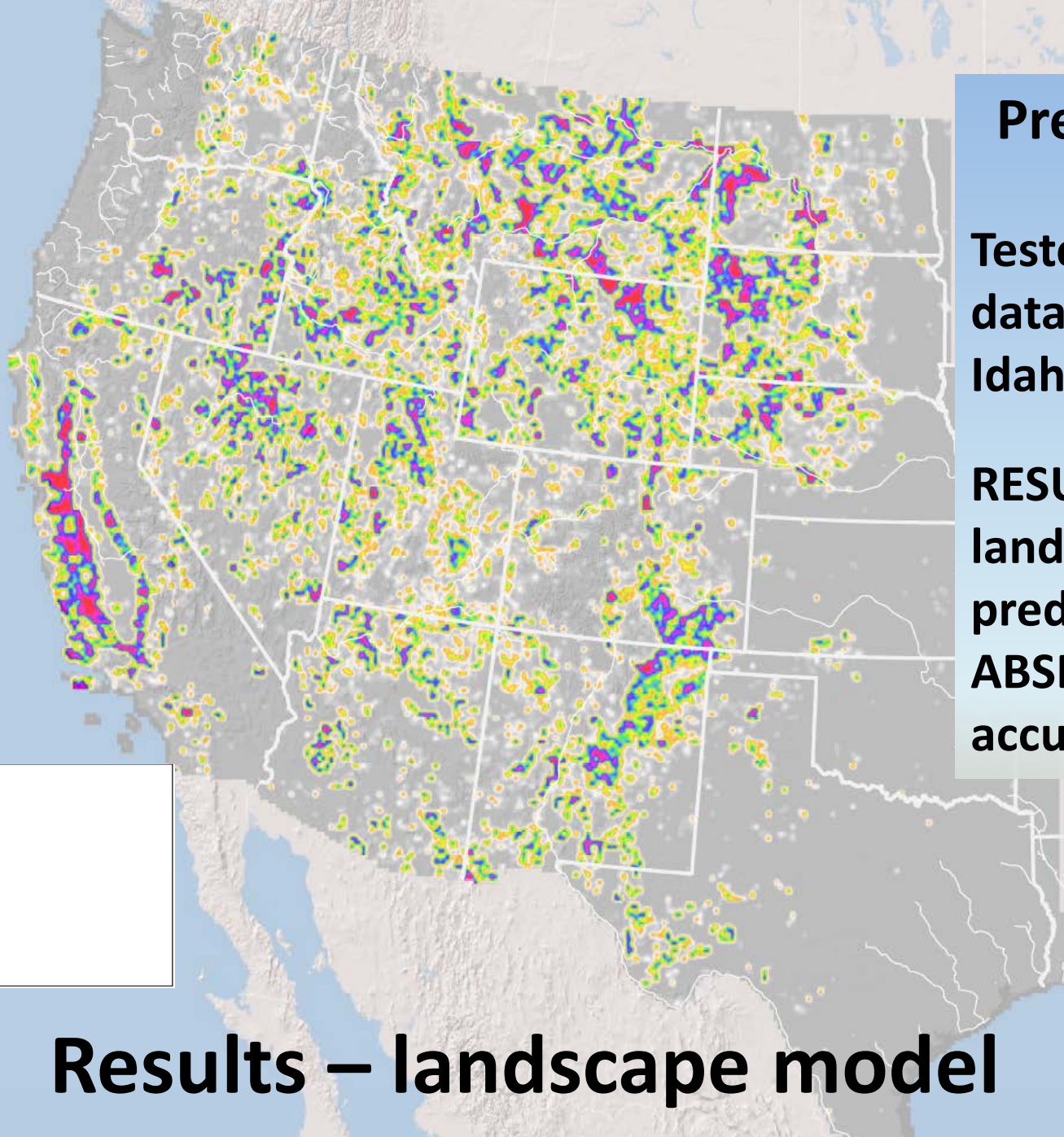# II. Predictive Model of MID-WINTER Landscape Use by Golden Eagles

Partners: Leo Salas, Dennis Jongsomjit, Nathan Elliott & Sam Veloz
Point Blue Conservation Science

Eastern Cascades Audubon
Nevada Dept. of Wildlife
Hawkwatch Int'l.

Predictive Accuracy

Tested against NEW datasets from Oregon, Idaho and Nevada

RESULT: the draft landscape models predict PRESENCE and ABSENCE with 84% accuracy

Seeking additional test data!

Results – landscape model

III. Predictive Models of Golden Eagle Movements and Migration

Objectives -

- **Step 1: Describe and model patterns of movement ***

- **Step 2: Model factors influencing movement routes**

❑ Compile and analyze telemetry data (ARGOS, GPS, CTT) from cooperators throughout North America

❑ Focus on landscapes and ecological conditions disproportionately used for movement and migration

Core Team:
Carol McIntyre
Jessica Brown
Todd Katzner
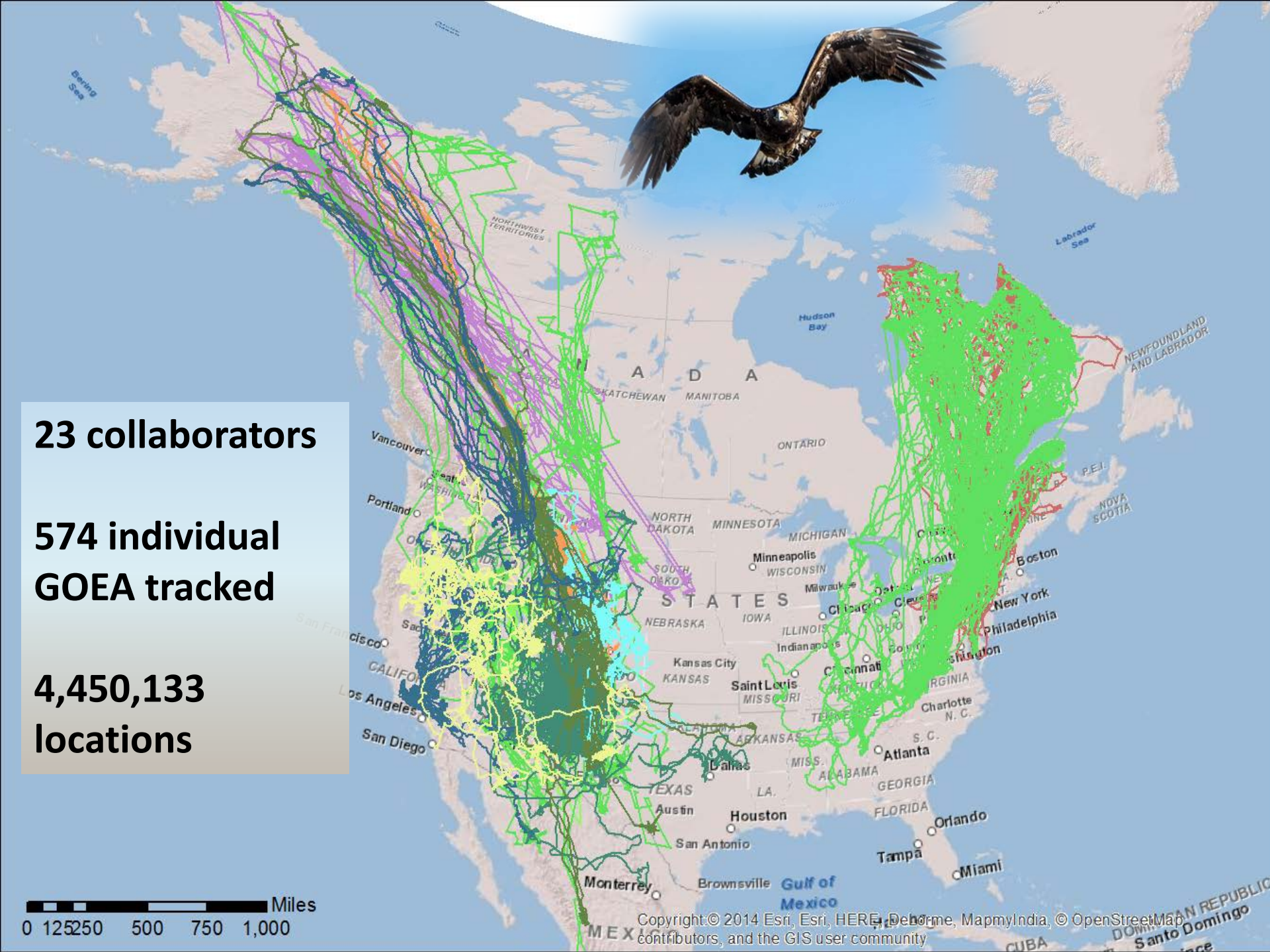Jeff Smith
Robert Murphy
Jim Watson
Brian Woodbridge

23 collaborators

574 individual
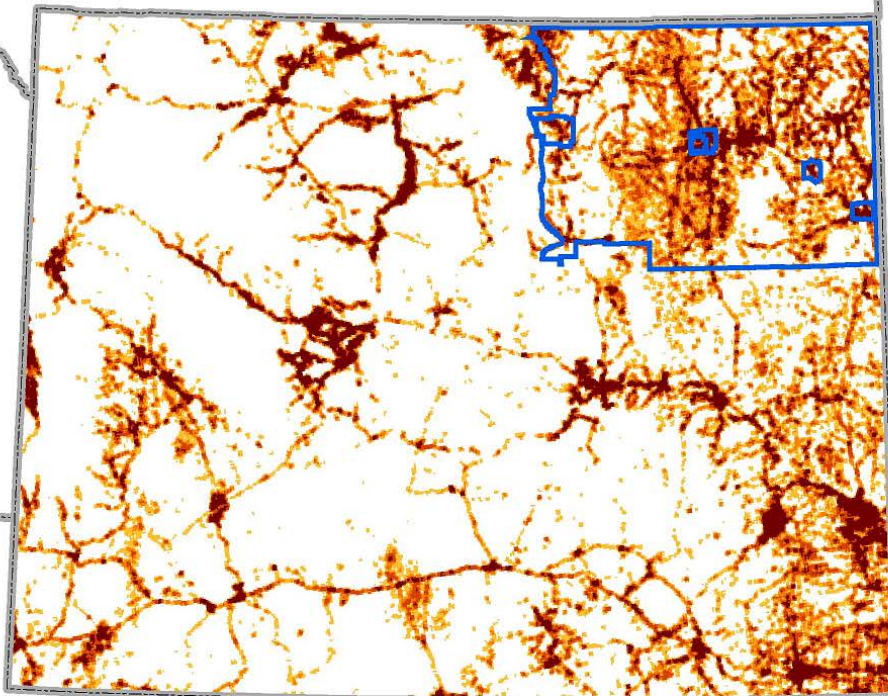GOEA tracked

4,450,133
locations

Predicting Landscape-scale Electrocution Risk for Mitigation and Proactive Planning
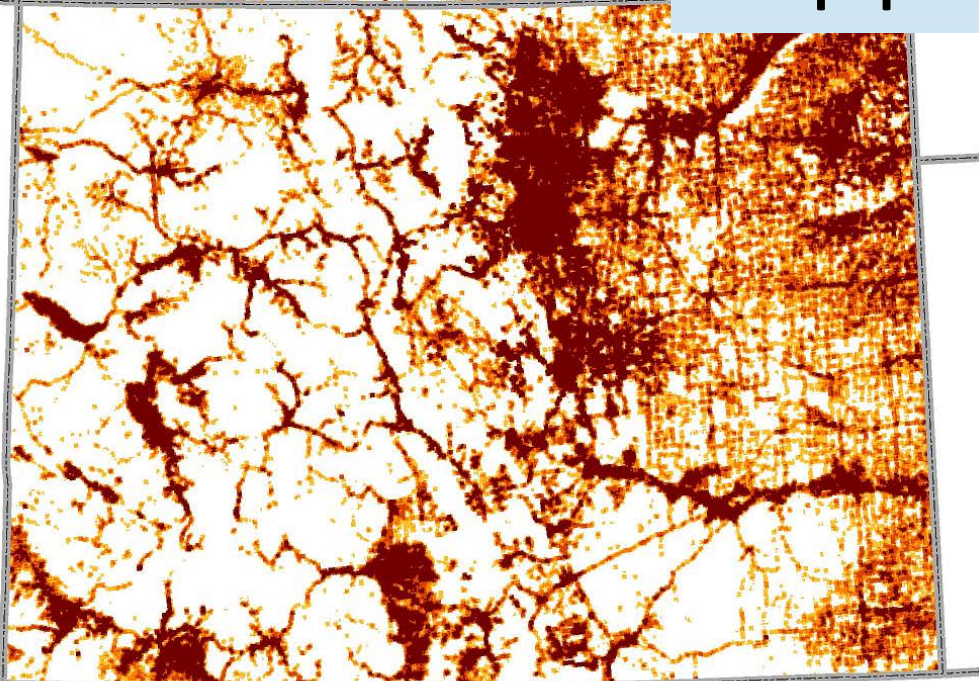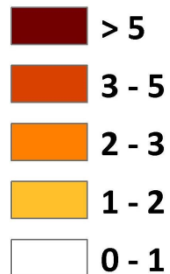
Predictive Model of Electrocution Hazard

- **Model power pole density as surrogate for electrocution hazard**

- **Increased PPD correlated with increased complexity of equipment (= hazard)**

CO/WY Model accurately predicts pole density

poles/km2

■	> 5
■	3 - 5
■	2 - 3
■	1 - 2
□	0 - 1

Partner:
James Dwyer et al.
EDM International

Evaluation of Model Performance

NW Wyoming
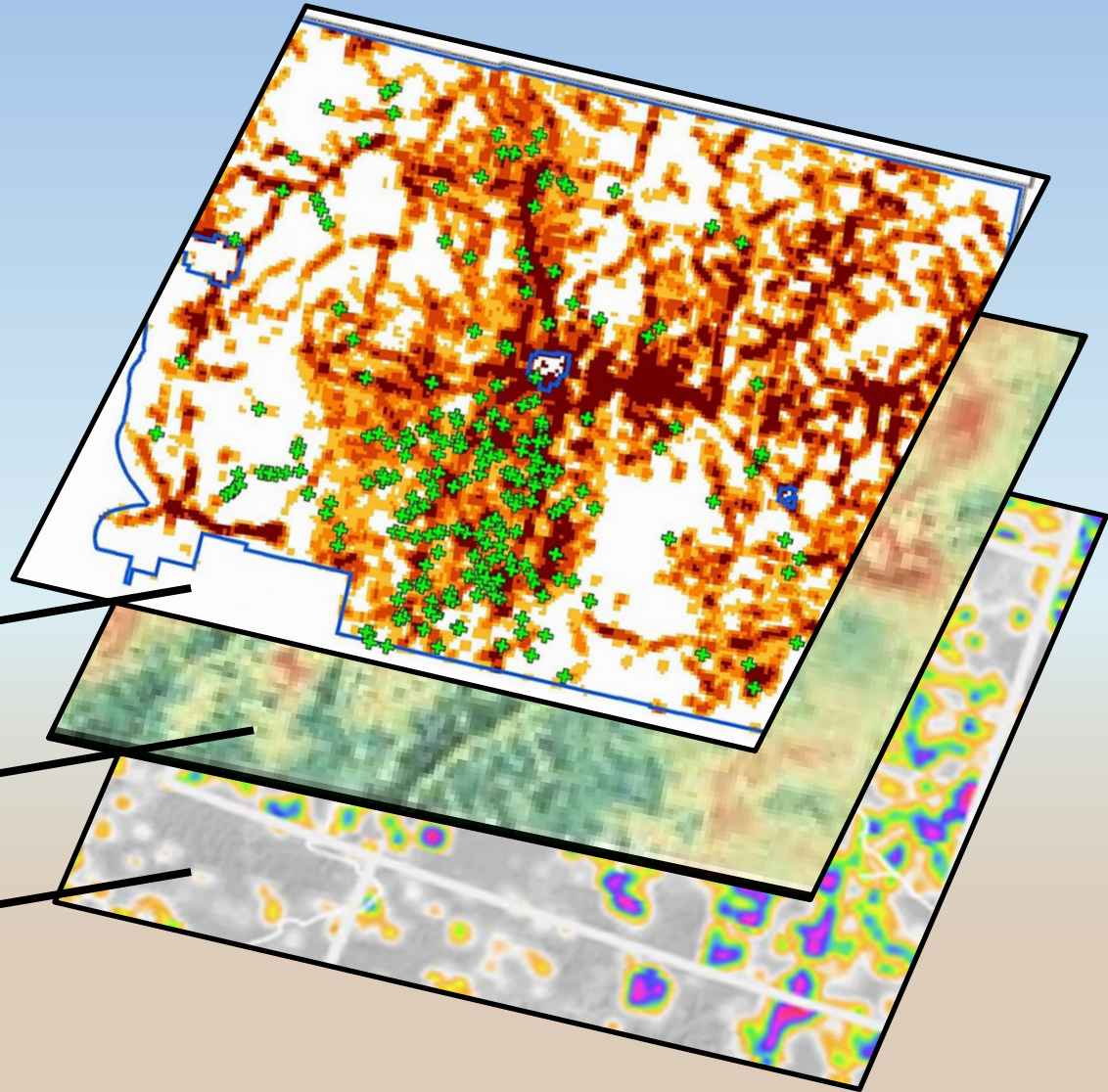
282 Golden Eagle electrocution mortalities ✚

Compared with:

Hazard model

Breeding model

Winter model

Questions?