

# *NEVADA'S BLACK BEAR*

## *AND THE USE OF KARELIAN BEAR DOGS*

### *IN BEAR MANAGEMENT*



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# Main components to management program:



## BEAR HUNTING



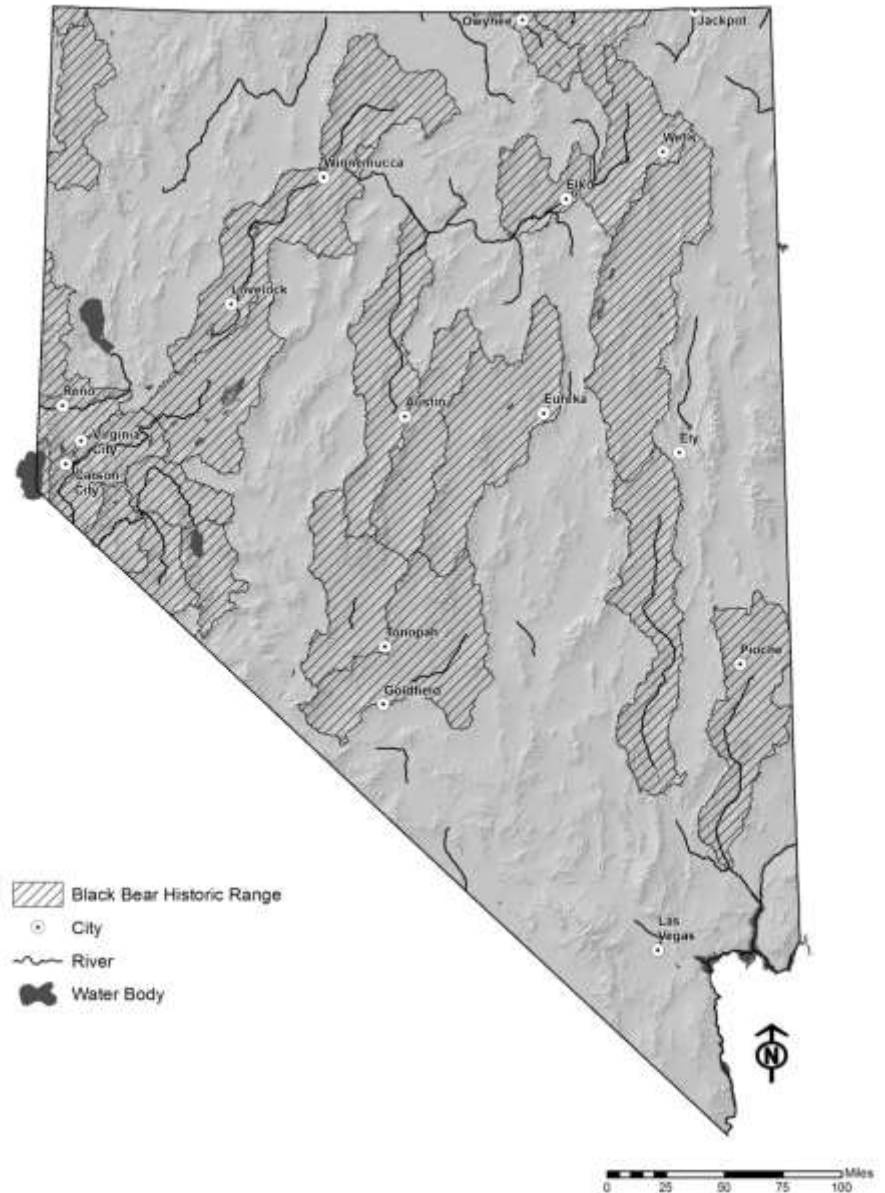
## BEAR RESEARCH



## HUMAN-BEAR CONFLICTS

# HISTORIC RANGE

- ❖ Historic distribution derived from historical articles and pioneer journals
- ❖ Extirpated from states' interior by early 1900s





# Extirpation by early 1900s – illicit hunting, competition with domestic livestock.

Murie 1948, Mattson and Merrill 2002



Courtesy - Nevada Historical Society

## Landscape scale habitat loss



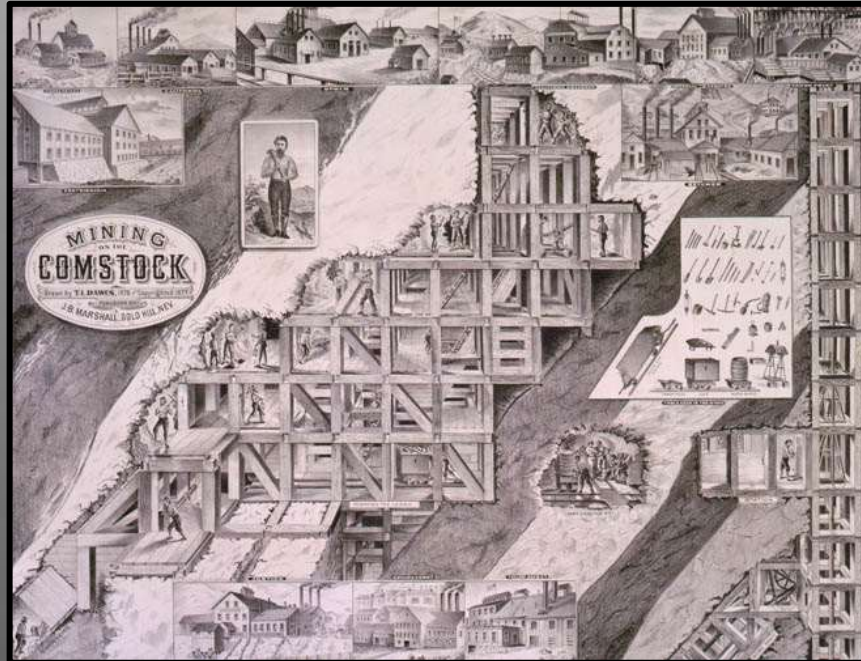
# Landscape scale habitat loss



Courtesy - Nevada Historical Society

**Example of clear cutting on Spooner Summit, circa 1870  
50-60 mile swath clear-cut**

# Landscape scale habitat loss



**Milled 300 cords of wood/2 hours  
at numerous lumber mills**

Knowles 1942

**700 cords of wood/day  
This occurred in several mountain ranges**



# Landscape scale habitat loss

**Charcoal production to run  
steam mills**

Young and Budy 1979

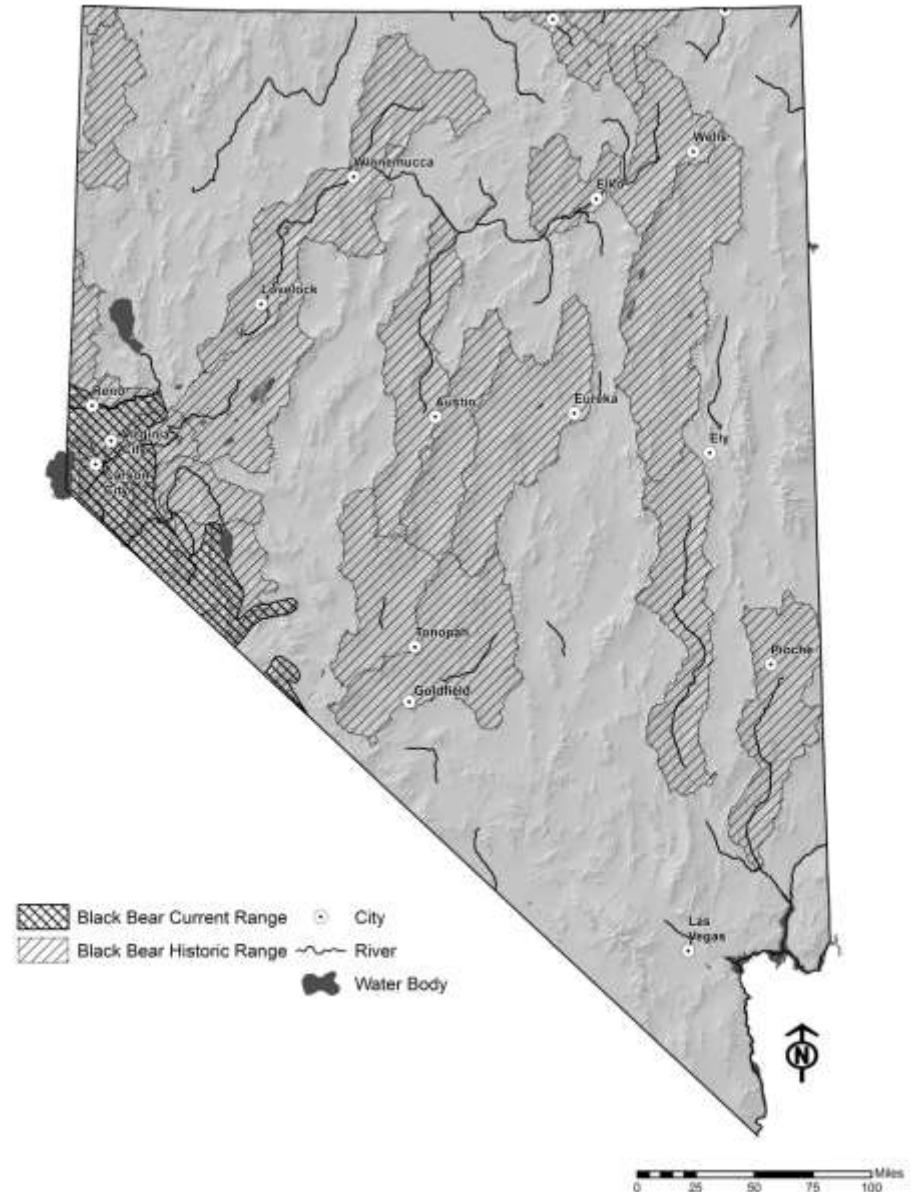


# **HISTORIC & CURRENT RANGE**

- ❖ End of mining booms and growing dependency on fossil fuels allowed habitat regeneration.
- ❖ This process took several decades

**"Nevada has no bear, except for an occasional one that strays in along the Sierras adjacent to Lake Tahoe in California. Therefore, we have no management responsibilities" –**

***Glen K. Griffith, Director-NDOW  
1979***







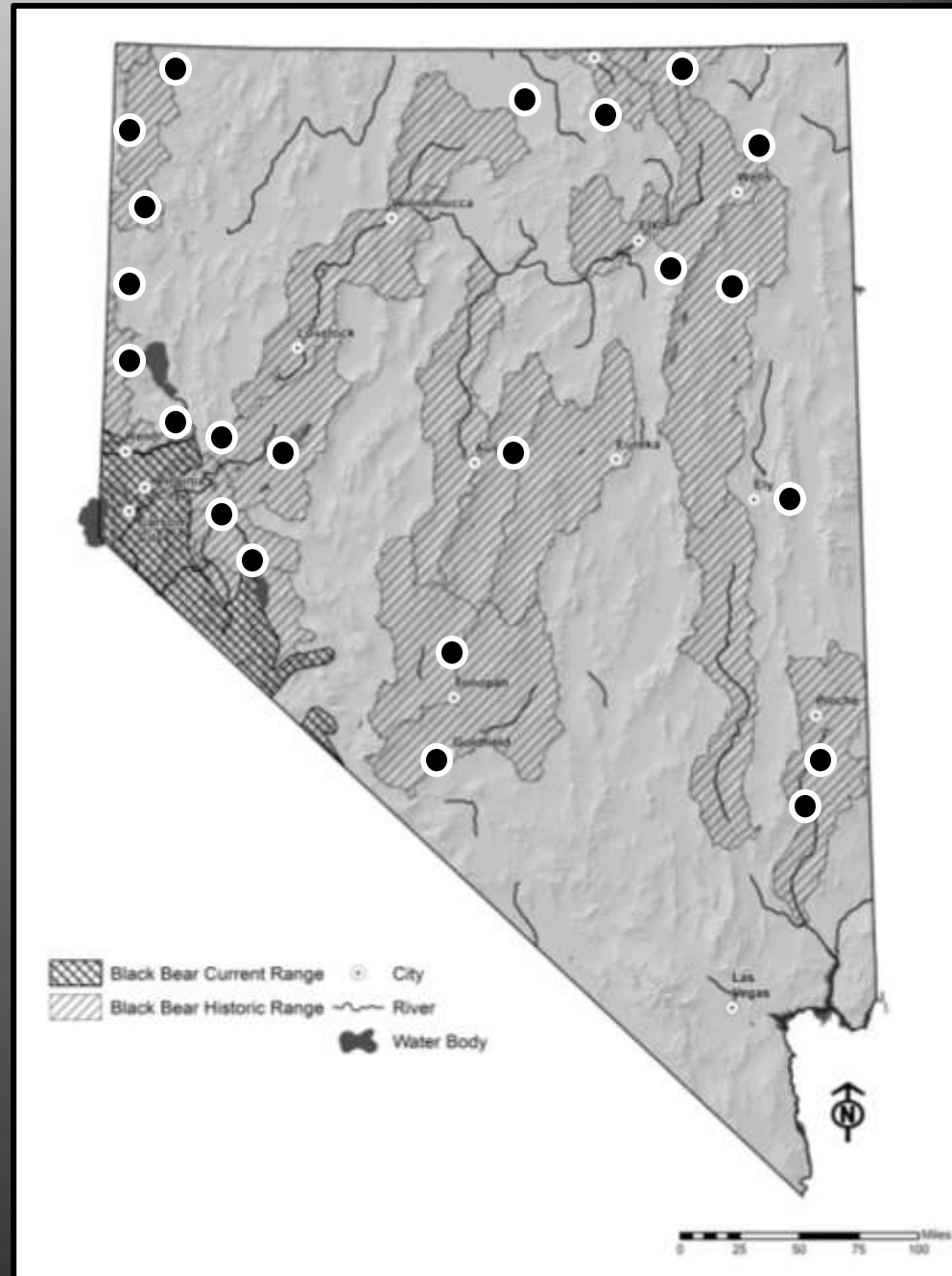
*Decades after extirpation...*

**1987 - First study of black bears in  
Nevada**

Goodrich 1990

# HISTORIC & CURRENT RANGE

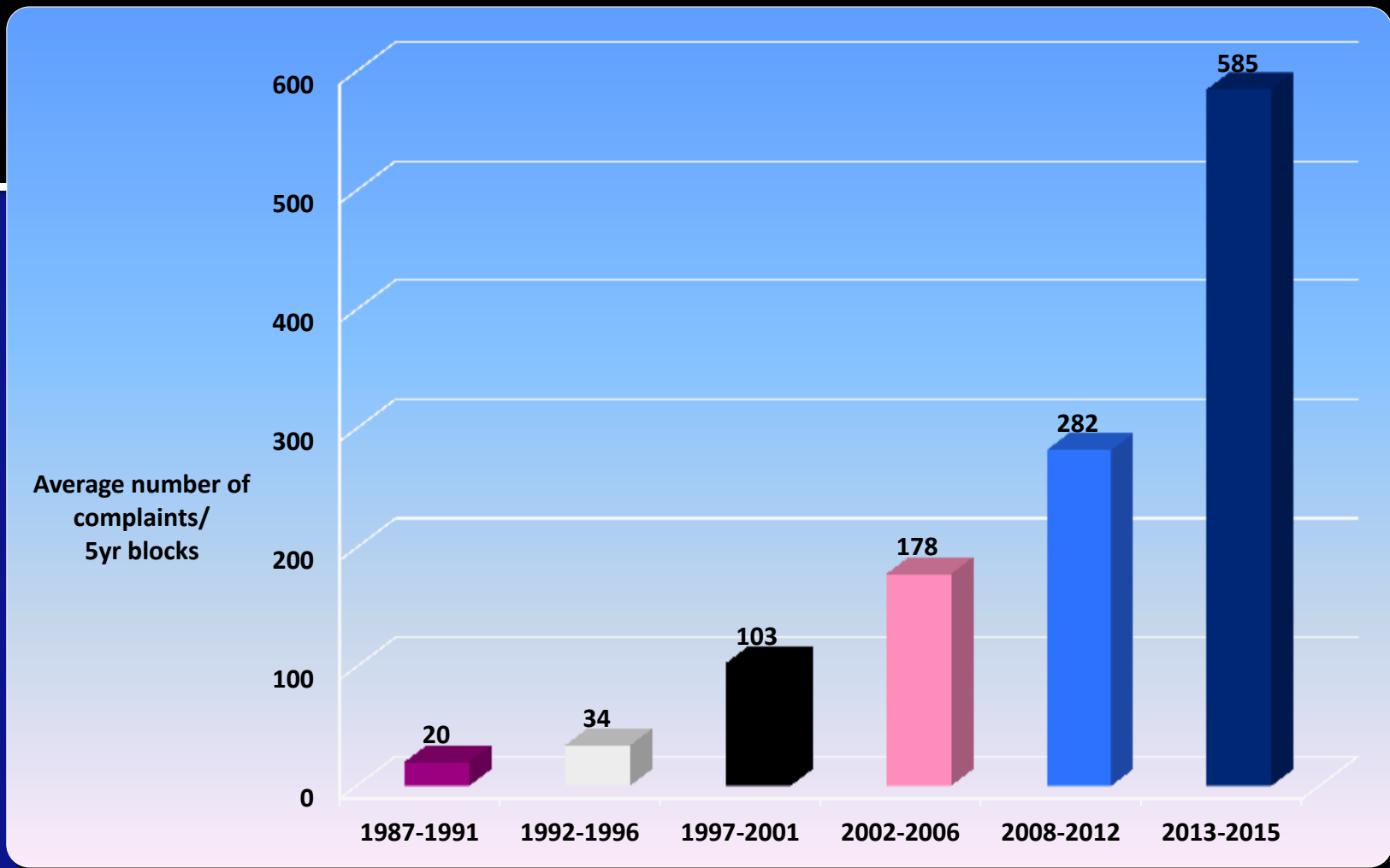
- ❖ Re-colonization occurring since probably early 1980s
- ❖ Expansion into historic habitat noted











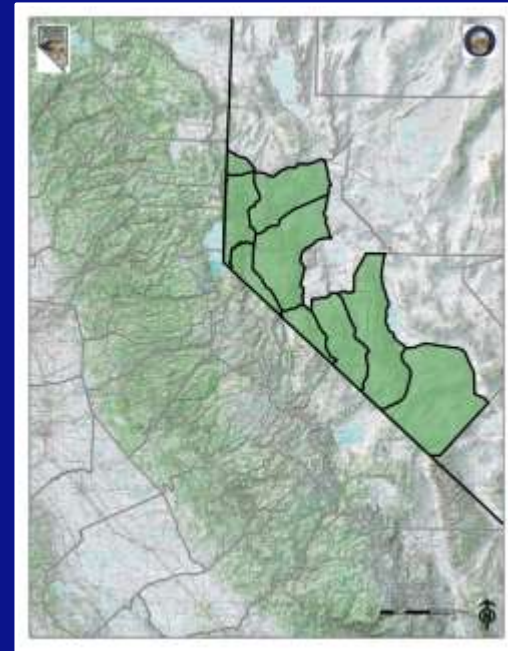
**PROLONGED DROUGHT EXASPERATES THE PROBLEM**  
*1500+ COMPLAINTS IN 2007*

# Long-Term Black Bear Research – 20<sup>th</sup> Year

*Cooperative Research with University of Nevada, Reno  
Wildlife Conservation Society – Dr. Jon Beckmann*



**Total sample size of 844 bears to date, not including recaptures**



**Data since 1997**

**Marked 514 bears & deployed 100+ Collars**

**VHF - GPS - SAT**

- **Urban bears/wildland bears**
- **Relocation Effectiveness**
- **Aversive Conditioning non-lethal management**
- **DNA-immigration/emigration**
- **Habitat modeling**
- **Mortality & survival rates**



## **Mark-recapture study**

- ✓ **Population estimate of 500-700**

**IMPORTANT**  
**MANAGEMENT IMPLICATIONS**



- Urban bears/wildland bears

- Relocation Effectiveness
- Aversive Conditioning & non-lethal management
- DNA-immigration/emigration
- Habitat modeling
- Mortality & survival rates





Research → Informed public makes better decisions resulting in:

- ❖ RECOGNIZE AREAS OF CONSISTENT HUMAN-BEAR CONFLICT
- ❖ TARGET AREAS FOR ENHANCED PUBLIC EDUCATION EFFORTS

- ✓ anti-feeding laws
- ✓ trash related ordinances
- ✓ HOA self-regulation



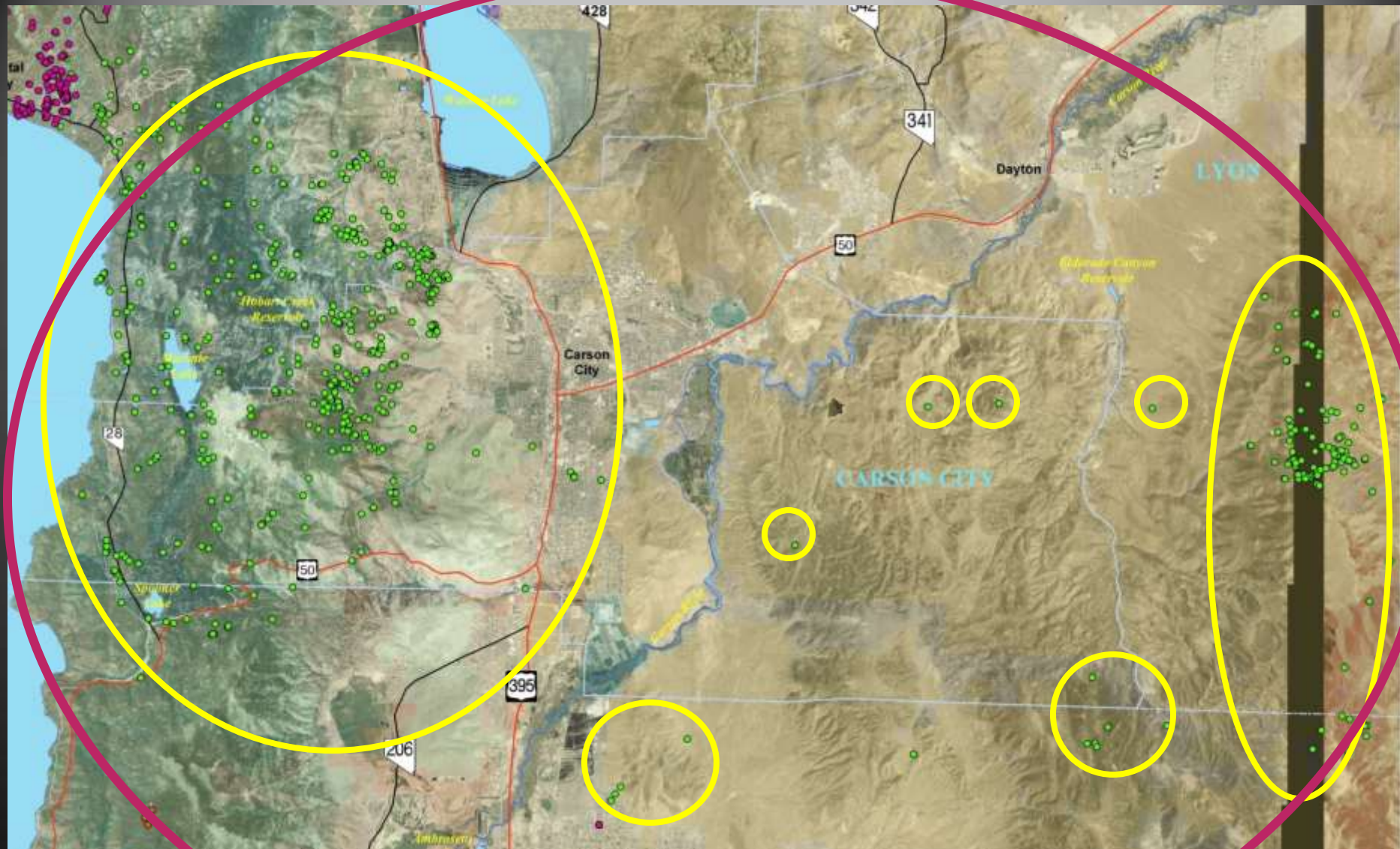


## Urban bears/wildland bears

- **Relocation Effectiveness**
- **Aversive Conditioning non-lethal management**
- **DNA-immigration/emigration**
- **Habitat modeling**
- **Mortality & survival rates**







✓ IDENTIFY AND PROTECT CORRIDORS ALLOWING GENETIC FLOW



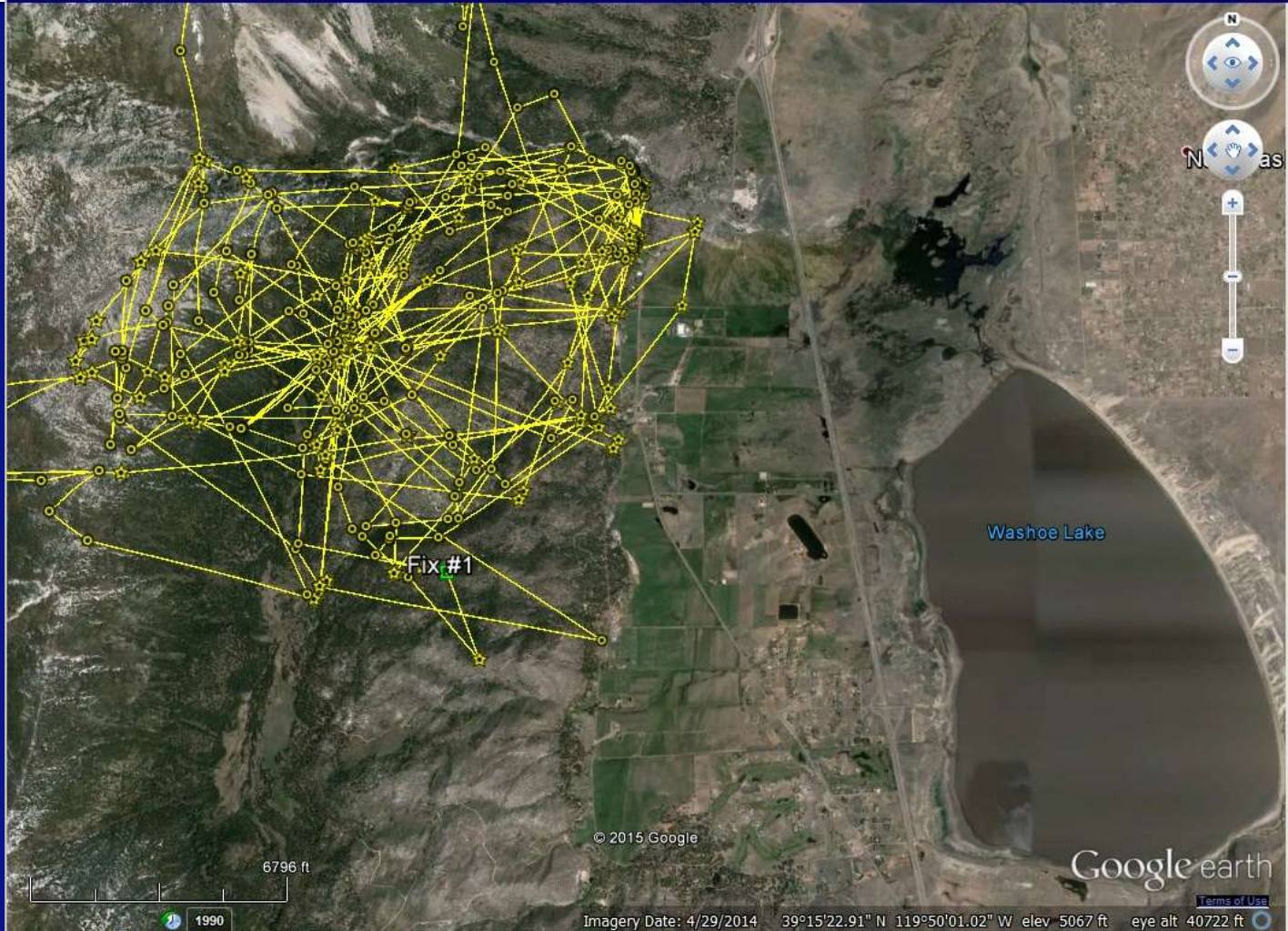
# VECTRONIC Aerospace

*innovative technology for science and research*



Welcome carl, you are connected to database "nevadabears".

[List view](#) [Switch map mode](#) [User manual](#) [Logout](#)



**Work space**  
Load Save

**Animal selection**

- 12348
- 12367
- 12372
- 15220
- 15221
- 15223
- 16749
- 16750
- P23-13528
- R98

**Data selection**

Recent positions  
 Positions by month / year  
 Time span

**Months:**

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jan	Feb	Mar	Apr	May	Jun
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jul	Aug	Sep	Oct	Nov	Dec

**Years:**

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2001	2002	2003	2004
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2005	2006	2007	2008
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2009	2010	2011	2012
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2013	2014	2015	

Select Clear

**Display options**

**General options:**

Animate

**Google Earth options:**

Show 3D terrain  
 Show borders



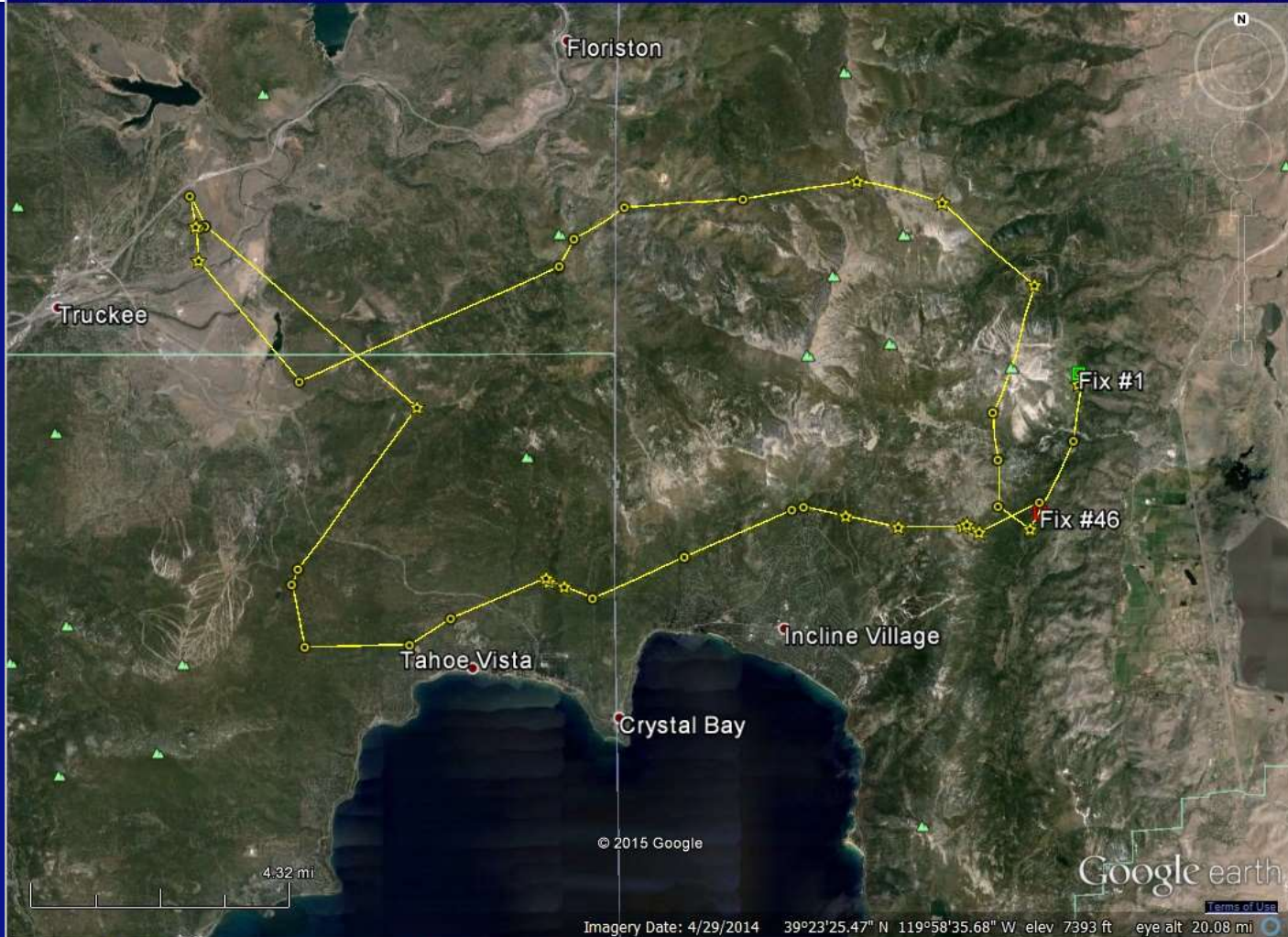
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**Data selection**

Recent positions  
 Positions by month / year  
 Time span

Start date: 2014-08-28  
End date: 2014-09-03

Select Clear

**Display options**

**General options:**

Animate

**Google Earth options:**

Show 3D terrain  
 Show borders  
 Show roads

**Scale unit:**

Metric  
 Imperial

**Data layers:**

= day location  
 = night location  
 12367 (46 pos.)  
 Show fixes  
 Show track

**Map overlay options**

KML / KMZ address



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innovative technology for science and research

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List view





**LAKEVIEW, OREGON**

**NORTHERN CALIFORNIA**

**SACRAMENTO VALLEY**

**EVIDENCE OF  
POPULATION CONNECTION**

**SOUTHERN CALIFORNIA**





# CONFLICT MANAGEMENT & KARELIAN BEAR DOG PROGRAM



*NDOW was one of the first agencies to use on-site releases with aversive conditioning as a non-lethal management tool (1997)*

Engages the public & gets buy-in for the program plus greater compliance



NDOWs Karelian Bear Dog program



*“Tank and Spank”*

Bears learn to associate humans with loud noises, pain and discomfort



# CONFLICT MANAGEMENT & KARELIAN BEAR DOG PROGRAM



**Karelian Bear Dogs (KBDs) – Russian/Finnish bred to hunt brown bear.  
Naturally assertive, fearless, quick**



# CONFLICT MANAGEMENT & KADILLAC BEAR DOG PROGRAM



## NDOWs KBD program

- bear conflict resolution
  - ✓ home invasions



# CONFLICT MANAGEMENT & KARELIAN BEAR DOG PROGRAM



## NDOWs KBD program

- bear conflict resolution
  - ✓ home invasions
  - ✓ urban dens





# CONFLICT MANAGEMENT & KARELIAN BEAR DOG PROGRAM



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  - ✓ conflict situations – tracking/hazing



# CONFLICT MANAGEMENT & KARELIAN BEAR DOG PROGRAM



## NDOWs KBD program

- bear conflict resolution
  - ✓ home invasions
  - ✓ urban dens
  - ✓ conflict situations – tracking/hazing
  - ✓ winter den visits





# CONFLICT MANAGEMENT & KARELIAN BEAR DOG PROGRAM



## NDOWs KBD program

- bear conflict resolution
  - ✓ home invasions
  - ✓ urban dens
  - ✓ conflict situations – tracking/hazing
  - ✓ winter den visits
  - ✓ educational ambassadors





[www.beardogs.org](http://www.beardogs.org)

## Wind River Bear Institute

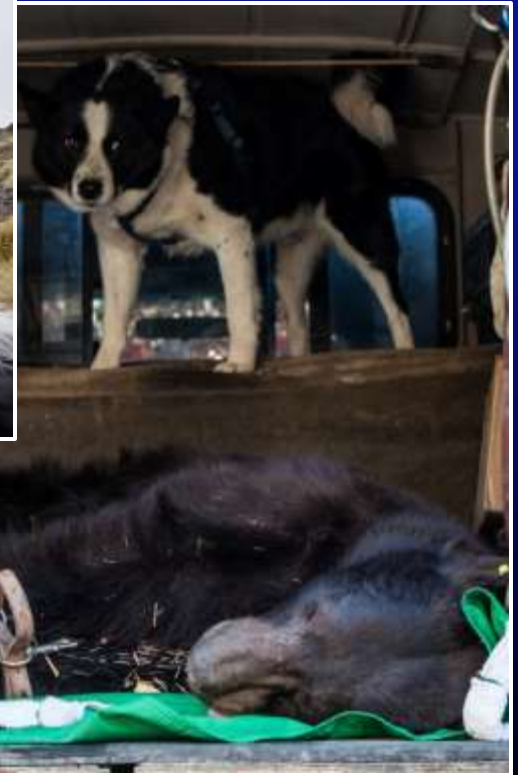
Partners-In-Life Program: Working to Save Wild Bears



**"Teach Your Bears Well"**



**Rooster bred to WRBI females.  
Placed in Japan, Alaska, Montana,  
California, Washington**



 Find us on:  
**facebook®**

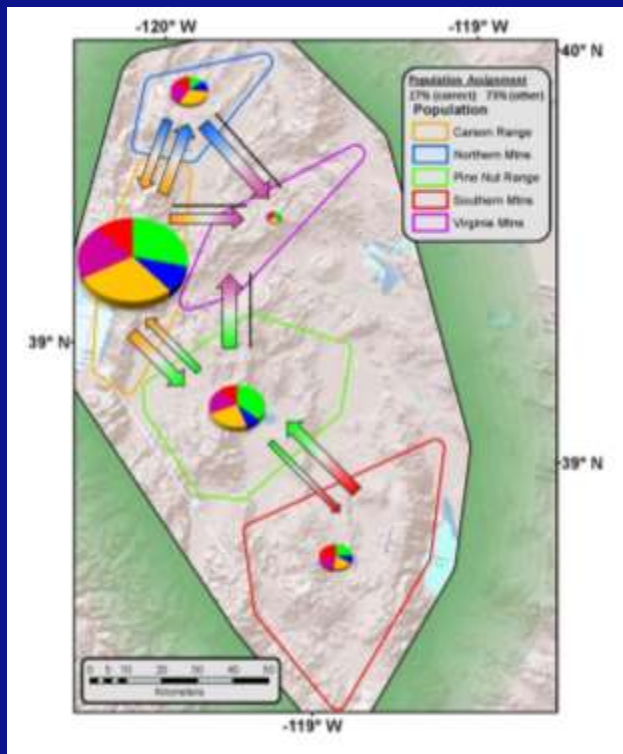
“ndow bear team”



# CONTINUED MONITORING & RESEARCH



## Completed projects in draft



- ❖ Habitat modeling - RSFs

**Columbia University**

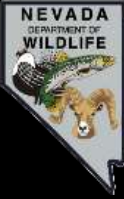
- ❖ DNA mapping – immigration & population connectivity

**University Nevada, Reno**

- ❖ Isotope analysis

**University of Tennessee**

# CONTINUED MONITORING & RESEARCH



## New projects



- ❖ Bear / Cougar interactions
  - cougars facilitating black bear range expansion?
  - cougar kill rates



## New projects



- ❖ Bear / Cougar interactions
  - cougars facilitating black bear range expansion?
  - cougar kill rates
  
- ❖ Hazing effectiveness
  - On-site releases
  - Karelain Bear Dogs

**Additional presentations offered by  
Nevada Department of Wildlife**

## **DANGEROUS WILDLIFE RESPONSE**

*Guidelines for the Law Enforcement Professional*



*Jake Kreamer  
Game Warden*

*Carl Lackey  
Bear/Cougar Biologist*

Post Cert #P0960001 – 3 hours



**NN BA**

Northern Nevada Beekeepers Association



PRESENTED BY:

CARL LACKEY  
BEAR BIOLOGIST

HEATHER REICH  
HUMAN-BEAR CONFLICT  
SPECIALIST

**NEVADA BLACK BEARS  
AVOIDING CONFLICTS**

*Tips for bee keepers &  
livestock owners*





# THANK YOU!



# QUESTIONS?





