

HWI's American Kestrel Studies

Dave Oleyar, Jesse Watson,
Mike Shaw, and Neil Paprocki



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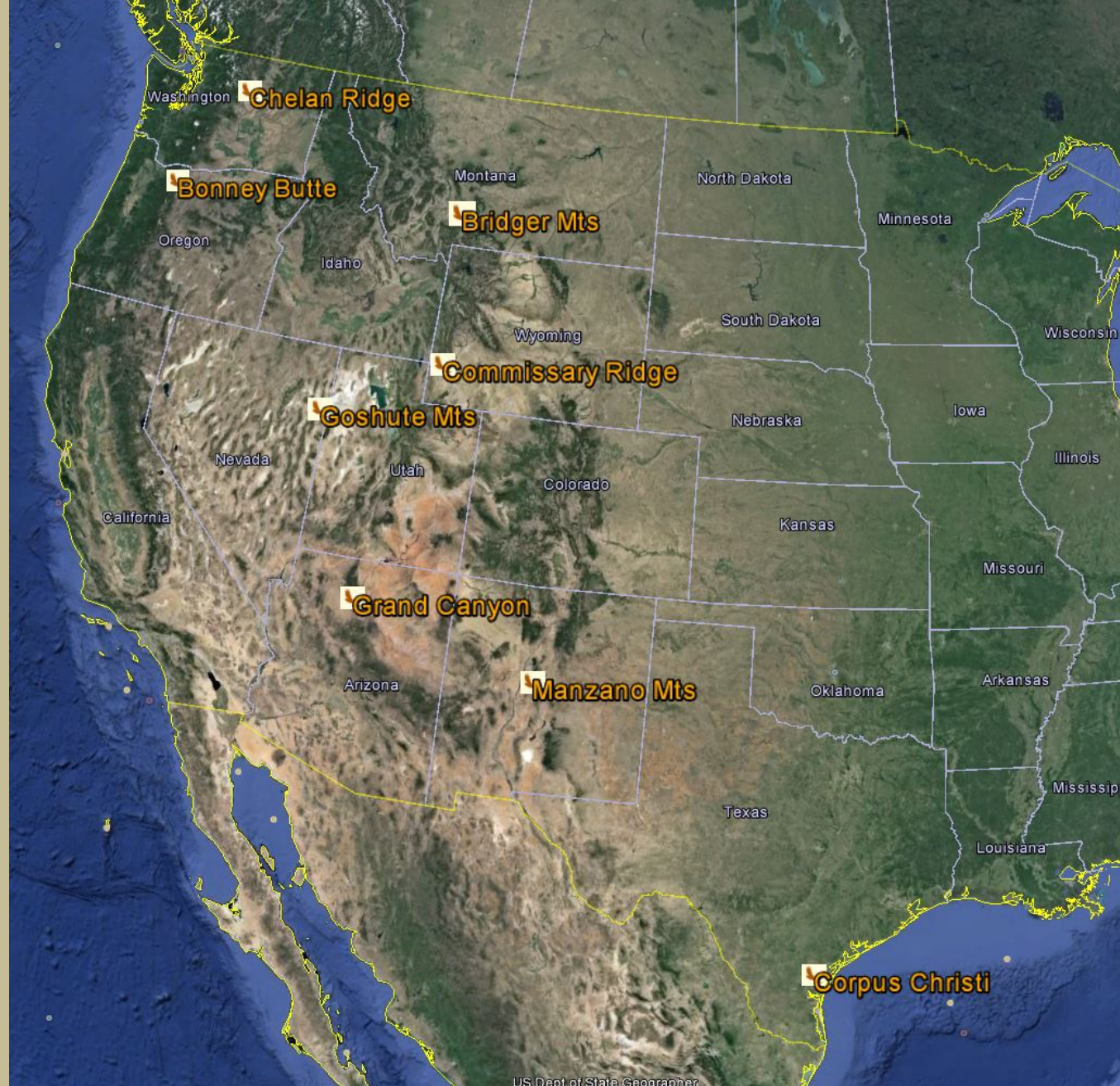


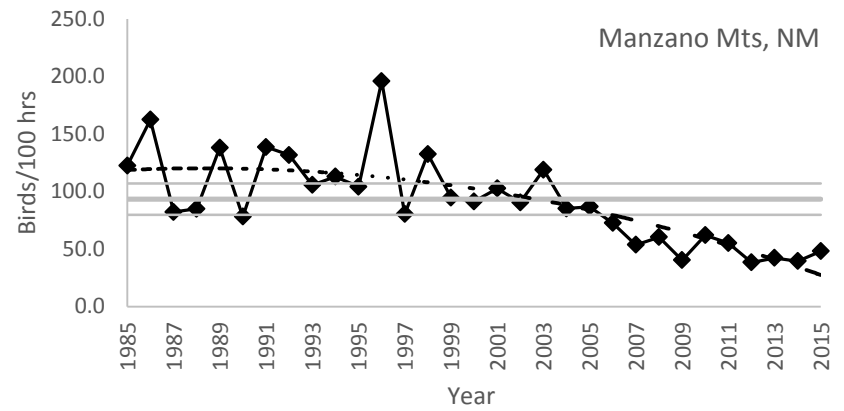
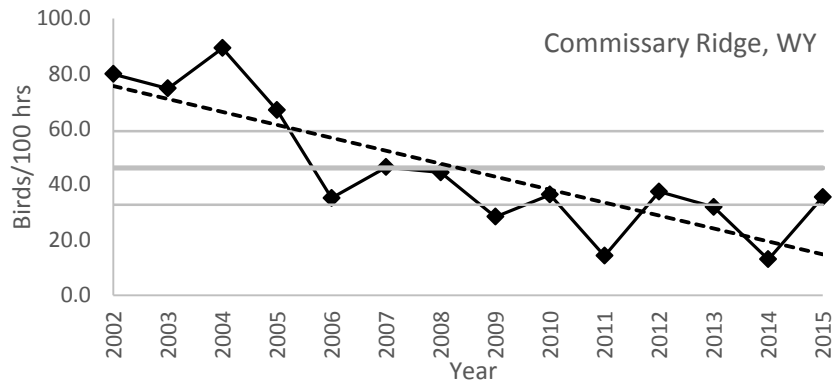
The mission of HawkWatch International is to conserve the environment through education, long-term monitoring, and scientific research on raptors as indicators of ecosystem health.

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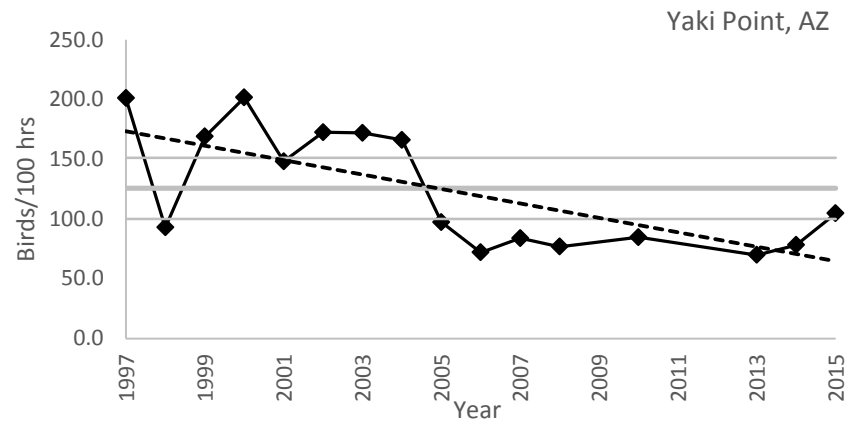
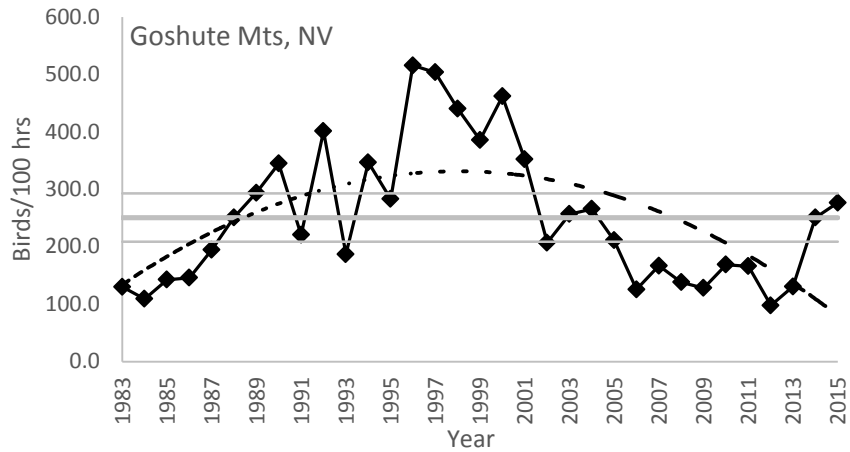
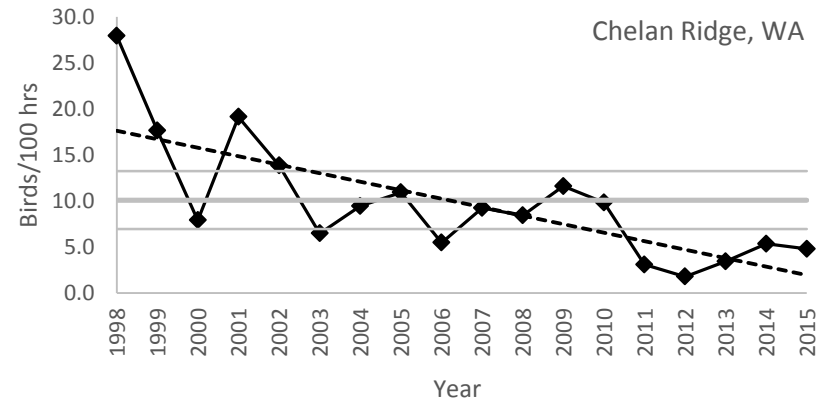
HWW's Fall Migration Network:

Site	Since
Bonney Butte	1994
Chelan Ridge	1997
Bridger Mts	1991
Commissary Ridge	2001
Goshute Mts	1983
Grand Canyon	1997
Manzano, Mts	1985
Corpus Christi	1997

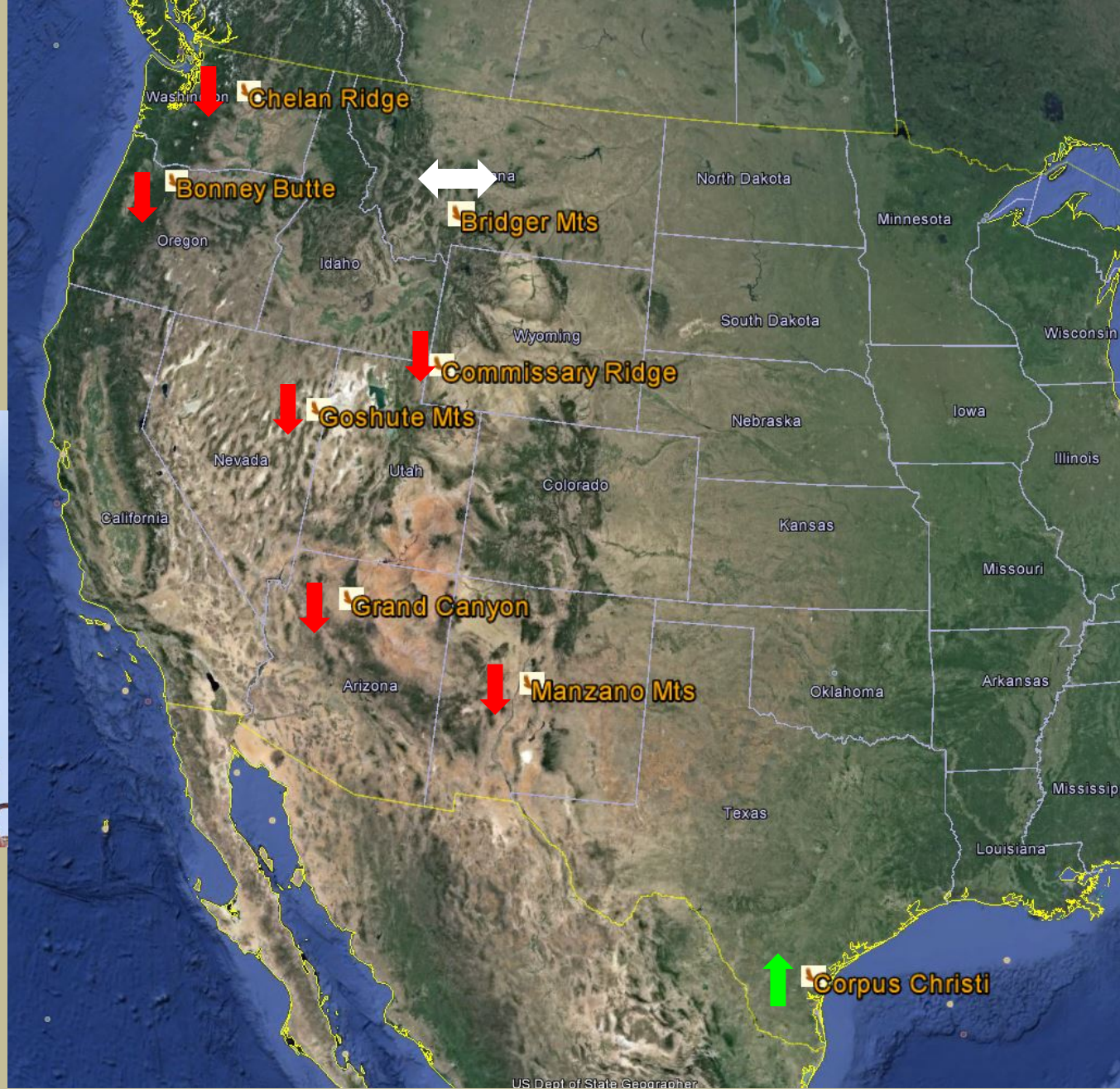




Kestrel declines across most of HWI's Migration Monitoring Network have led to focused research geared towards understanding causes.

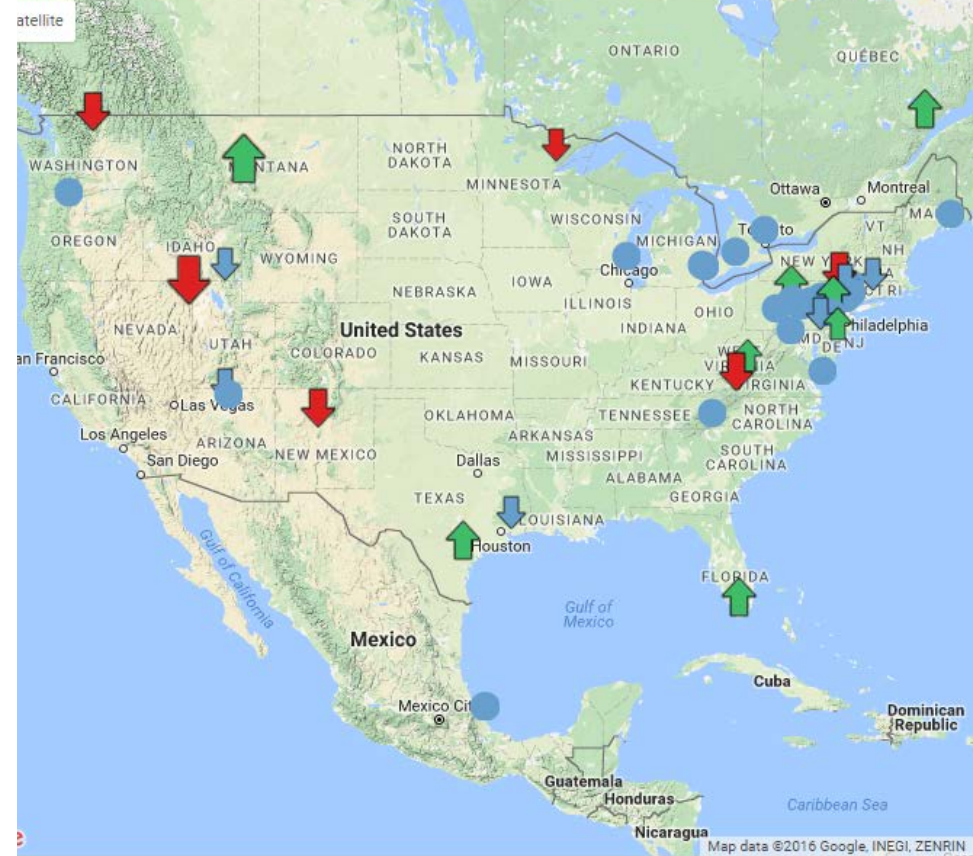
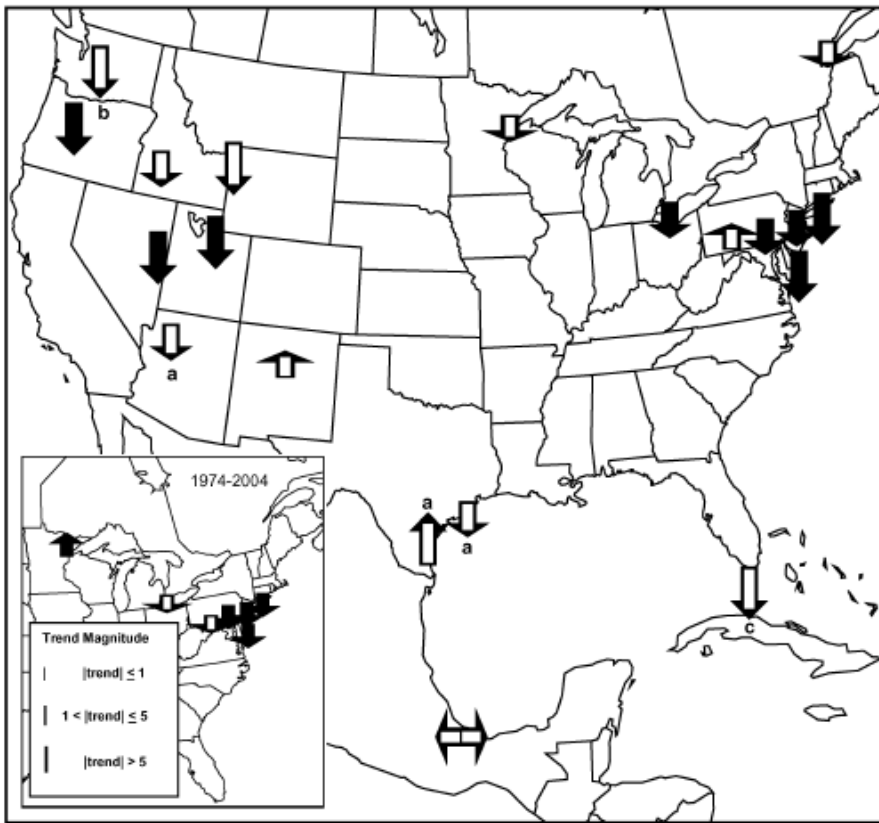


Network can identify trends in regional populations and highlight the need for focused research, as in the case of the American Kestrel



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American Kestrel

1994-2004 RPI trend summary:

- 20 total sites
- Zero increasing (+3 ns)
- 8 declining (+8 ns)

2004-2014 RPI trend summary:

- 41 total sites
- 8 increasing (+2 ns)
- 6 declining (+5 ns)



HWI's Kestrel Efforts in N. Utah

- Started in 2013 and has grown each year since
- Engage citizen scientists in science and conservation efforts (35+ annually)
- Partner with local stakeholders
- Plans to expand

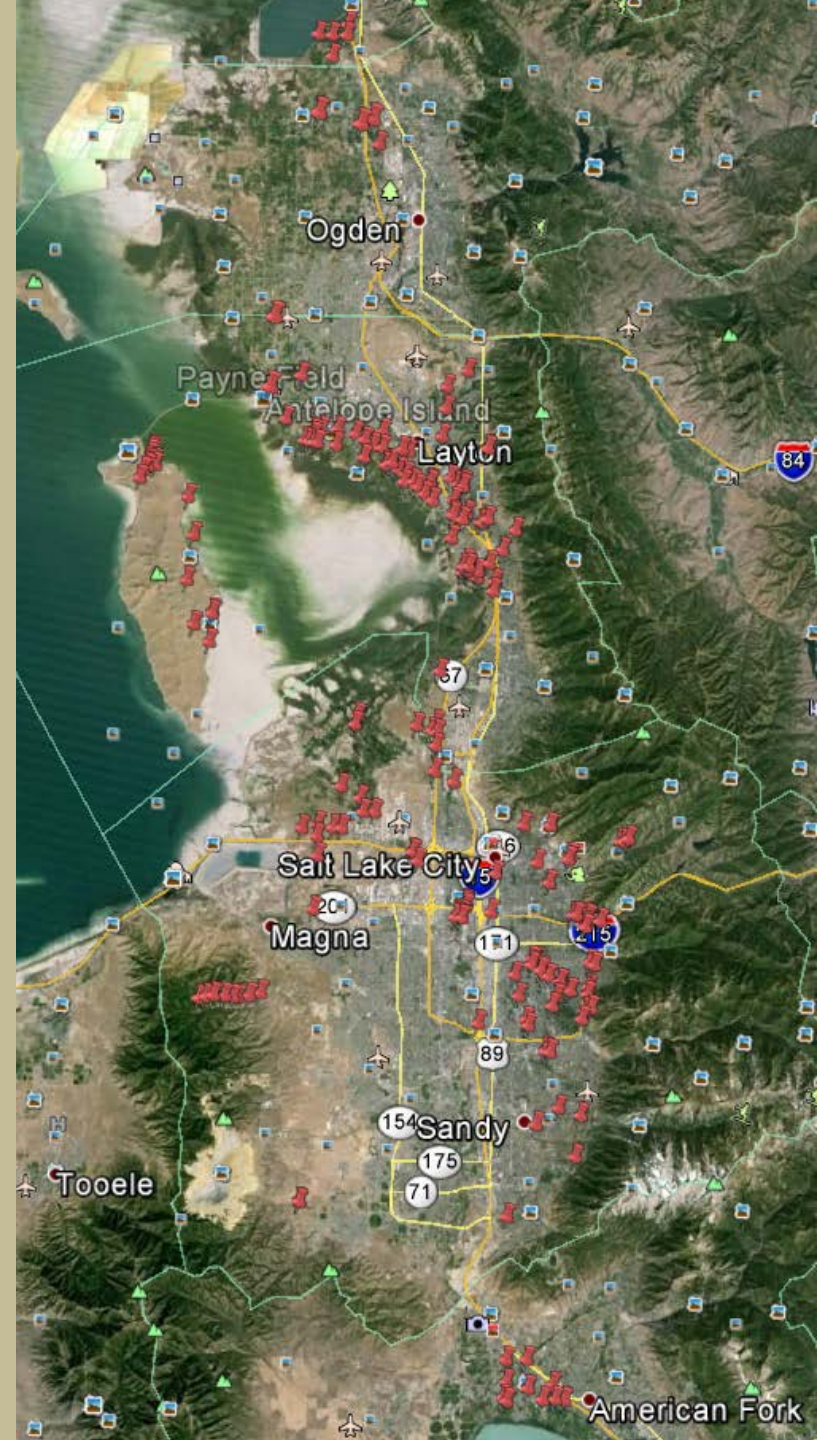


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Kestrel demographics in different Landscapes across an Urban Gradient

~300 Boxes along the front at the moment

More to come: partnerships w/ SL County and SL City Open Space, Ogden area, Logan Area, Wasatch "Back", Eagle Mt





Boxes checked every 7-14 days from mid-March thru mid-July

Goal is to document all nesting attempts, and nest metrics

Combination of ladder and camera checks





West Layton

Layton

West Kaysville

Kaysville

191

232

109

126

Sluff Rd

W Hill Field Rd

N 3200 W

N 2200 W

N 700 N

W Gordon Ave

N Fort Ln

N Fairfield Rd

Oak Hills

E Gentle St

Layton Pkwy

Flint St

S Angel St

Layton Parkway

N Angel St

W Milton Hollow Rd

N 100 E

West Kaysville

W 200 N

S 21st St

Old Mill Ln

Veterans Memorial Hwy

N Main St

Sunset Dr

Deseret

S 50 W

Datasheets:

Fill out a nest form for any occupied box (even non-kestrels).

We are interested in how competition for nest sites might influence the cavity nesting community (plus conservation of other native cavity users, so this is useful information



HWI Active Nest Form

Incubation: AMKE 30 d, EUST 11d, MOBL 13 d, HOWR 13d, NOFL 11d, WESO 30d

Nestling: AMKE 28d, EUST 21d, MOBL 20d, HOWR 18d, NOFL 24d, WESO 30d

Box ID# _____

General Description of Nest Box location: _____

Observers _____

Species: _____

Kestrel (AMKE), Starling (EUST), Western Bluebird (WEBL)

Date found: _____

Status found (if known): _____

ARE ADULTS BANDED?

ub = unbanded

m = metal USGS band

? = not seen/unsure

P, B, R = purple, blue, red ; then code Blue K over N would be B K/N

Male		Female	
Left	Right	Left	Right

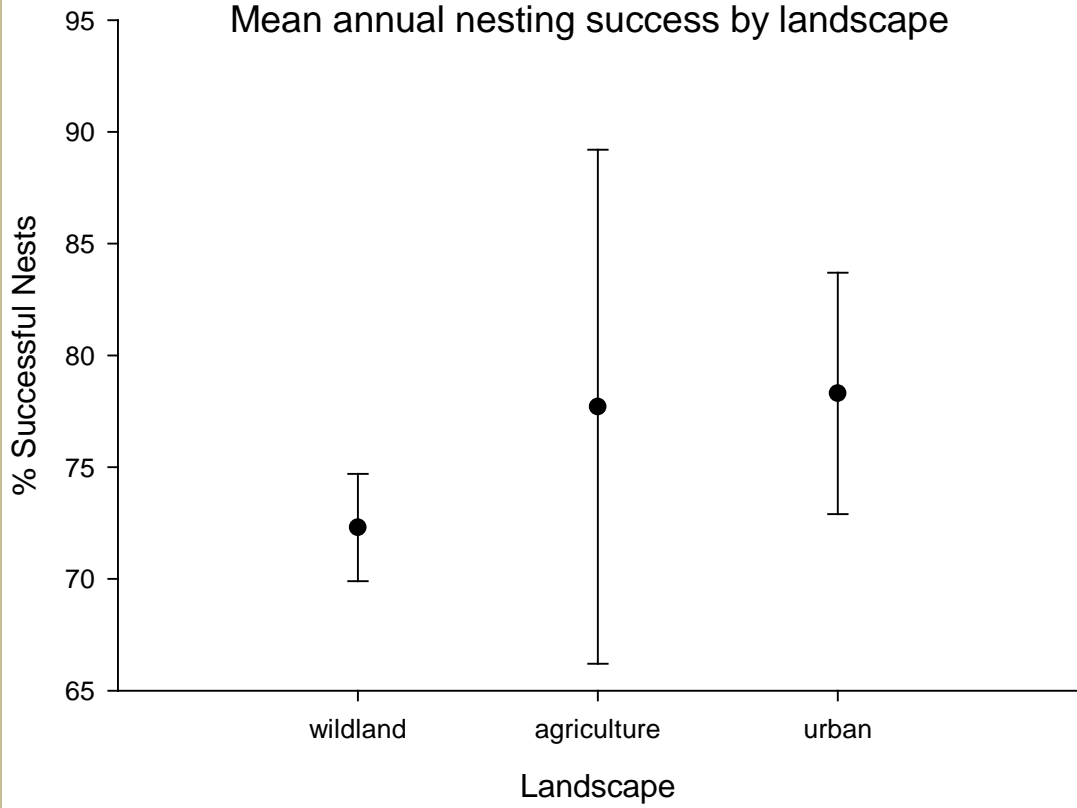
Visit	Date	Status	Comments
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

Summary Nest Metrics:

Successful*
Y / N

Clutch	Brood	# Fledged

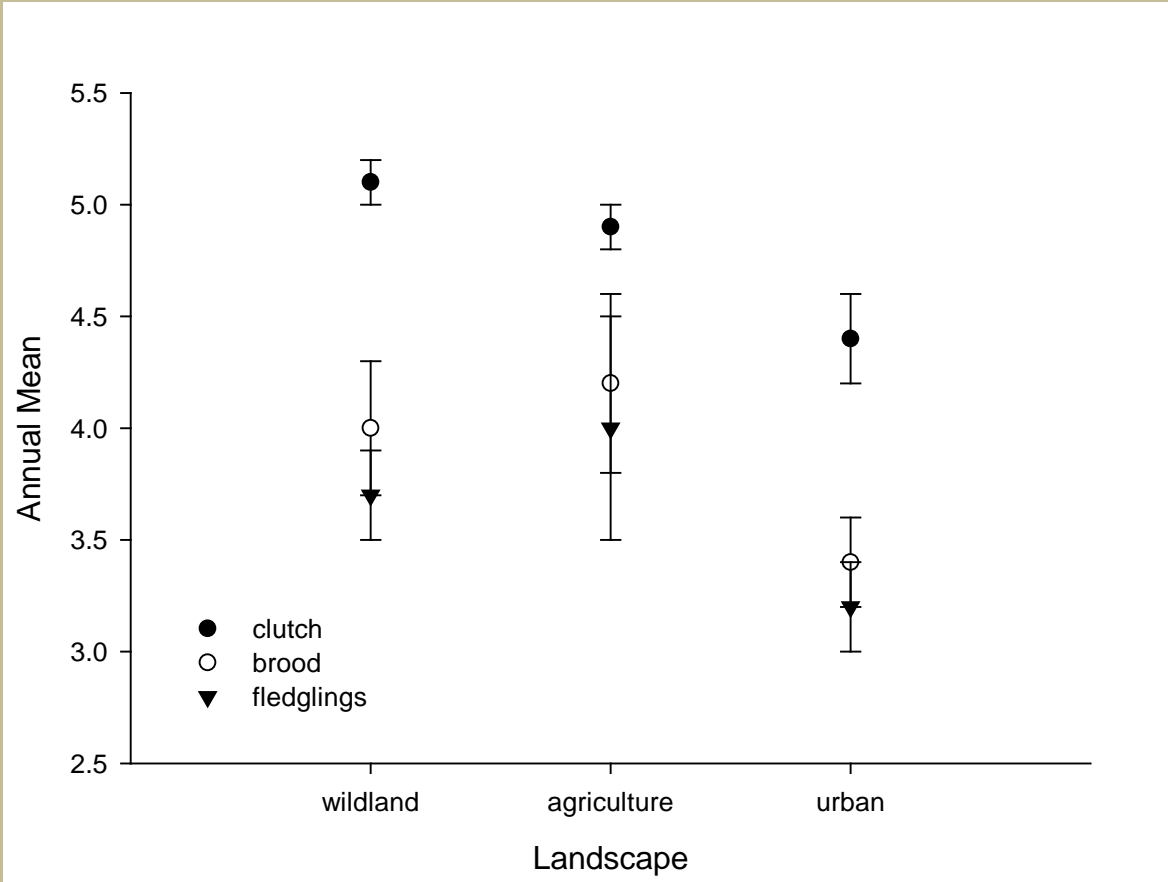
Mean annual nesting success by landscape



Does nest success vary by landscape?

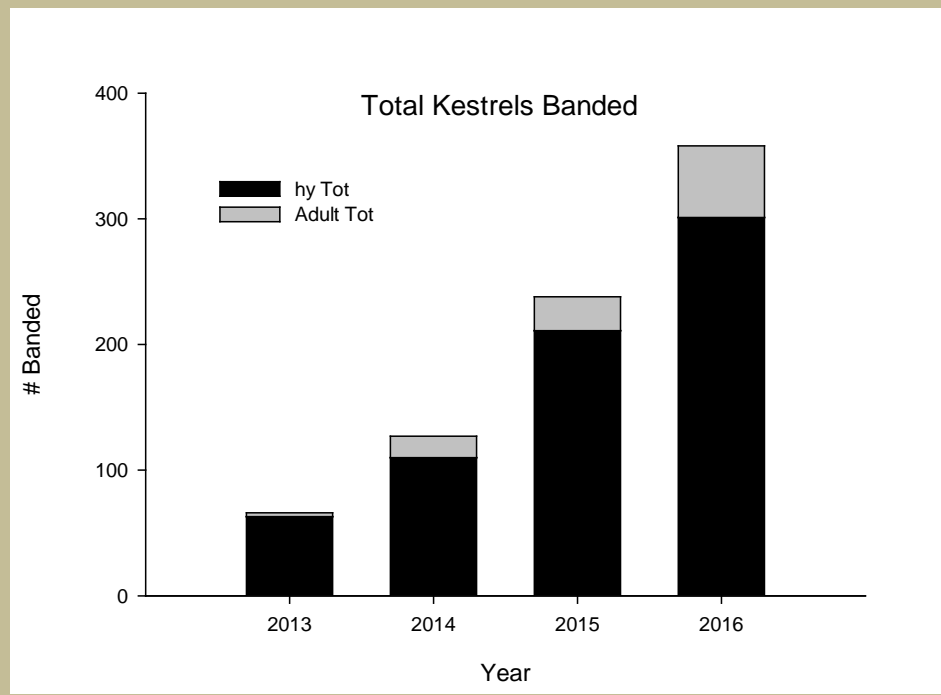


Do clutches, broods, or number of fledglings vary by landscape?

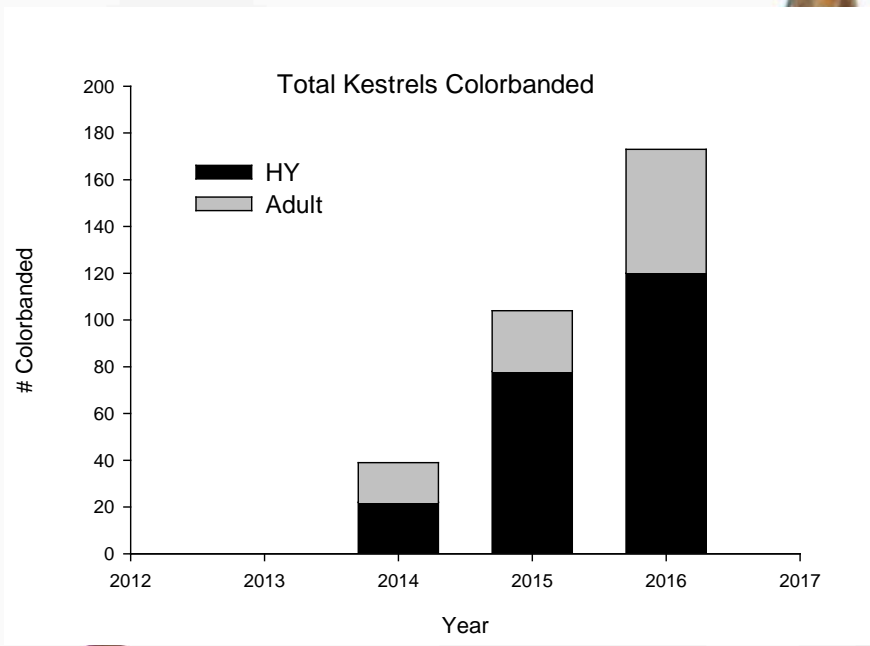


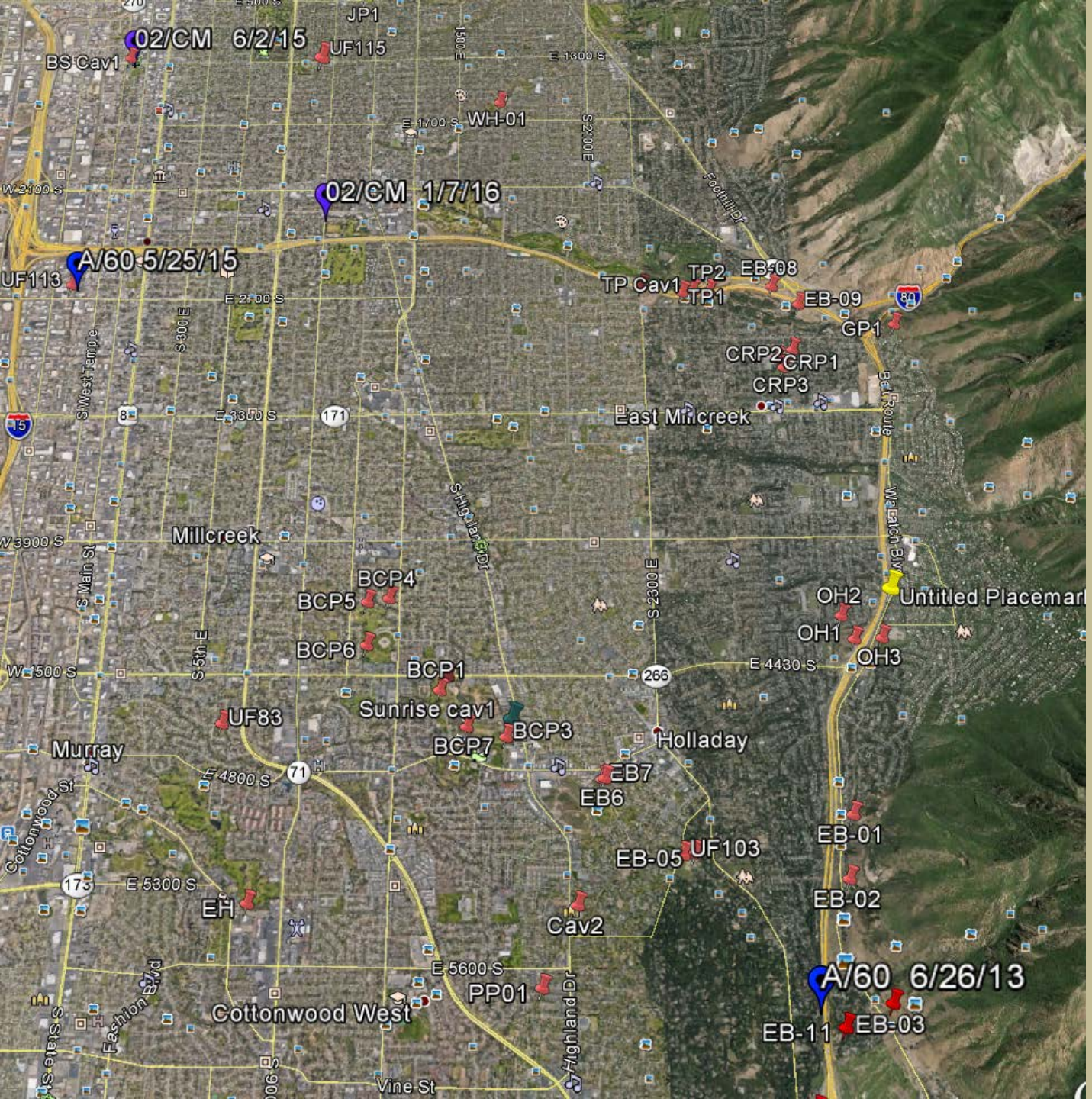
Banding efforts

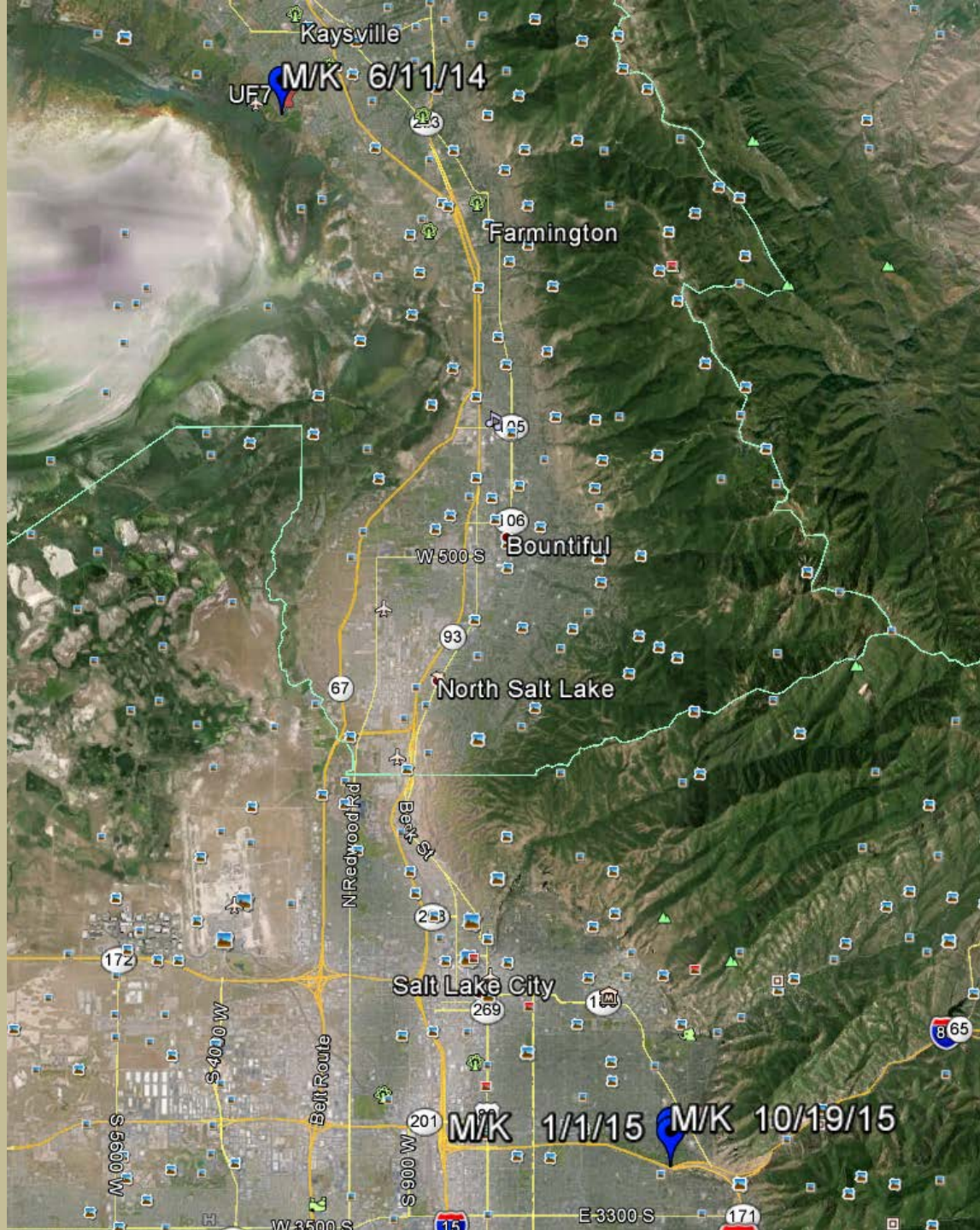
- Allow identification of individuals without need to recapture
- Enable documentation of:
 - Movements & fidelity (territory and mate)
 - Winter turnover
 - Survival



- Breeding season effort to determine band status of kestrels within their nestbox clusters
- Seasonal colorband resight surveys across area







We do our best to keep tabs on non-box nests when possible

- Open pipes on sides of buildings
- Flicker holes on structures
- Tree hollows
- Open ends of steel power poles



02/CM 6/2/15

BS Cav1

Liberty Park Pond

Liberty Wells

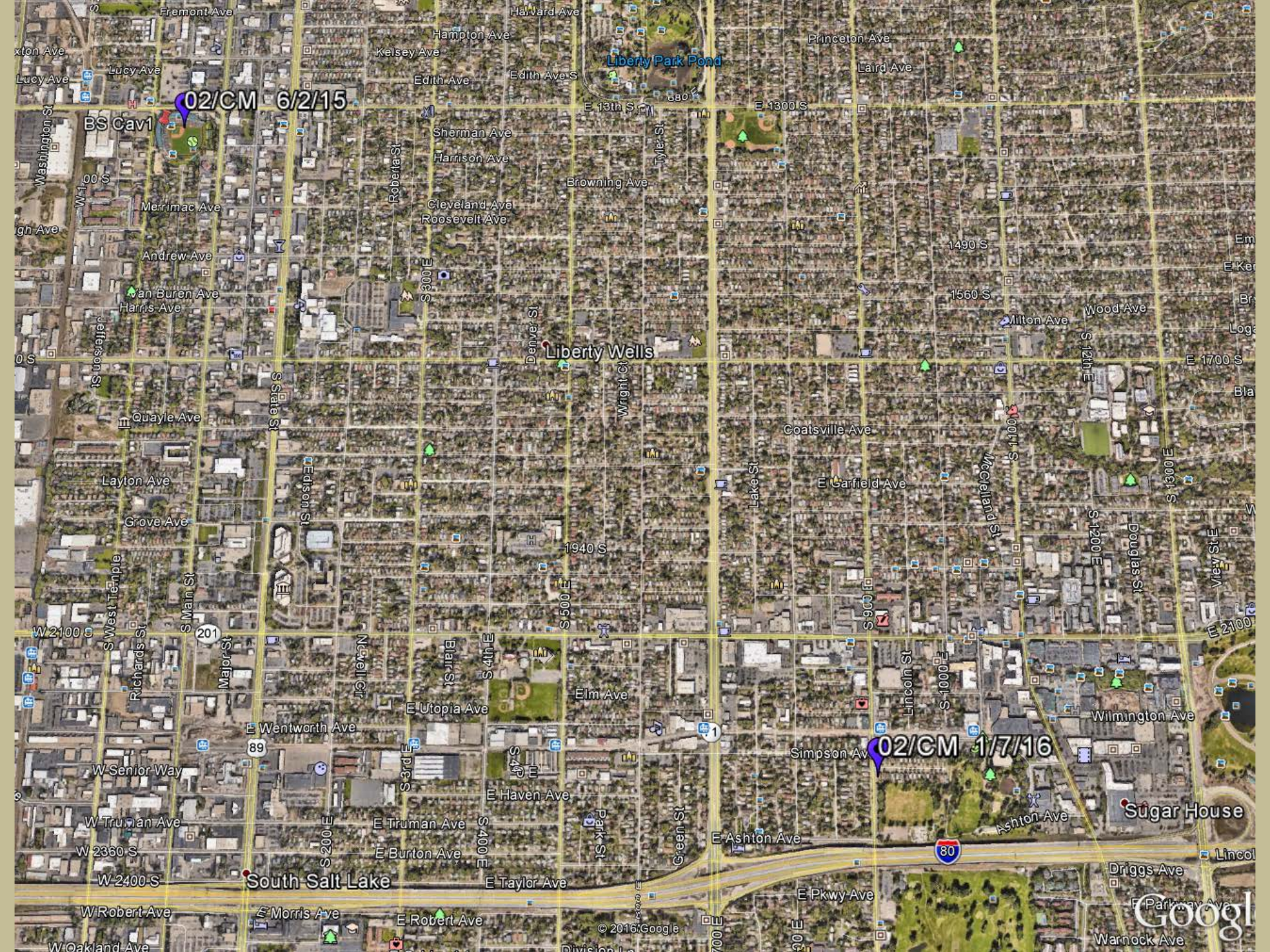
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South Salt Lake

Sugar House

Google

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Engaging the public

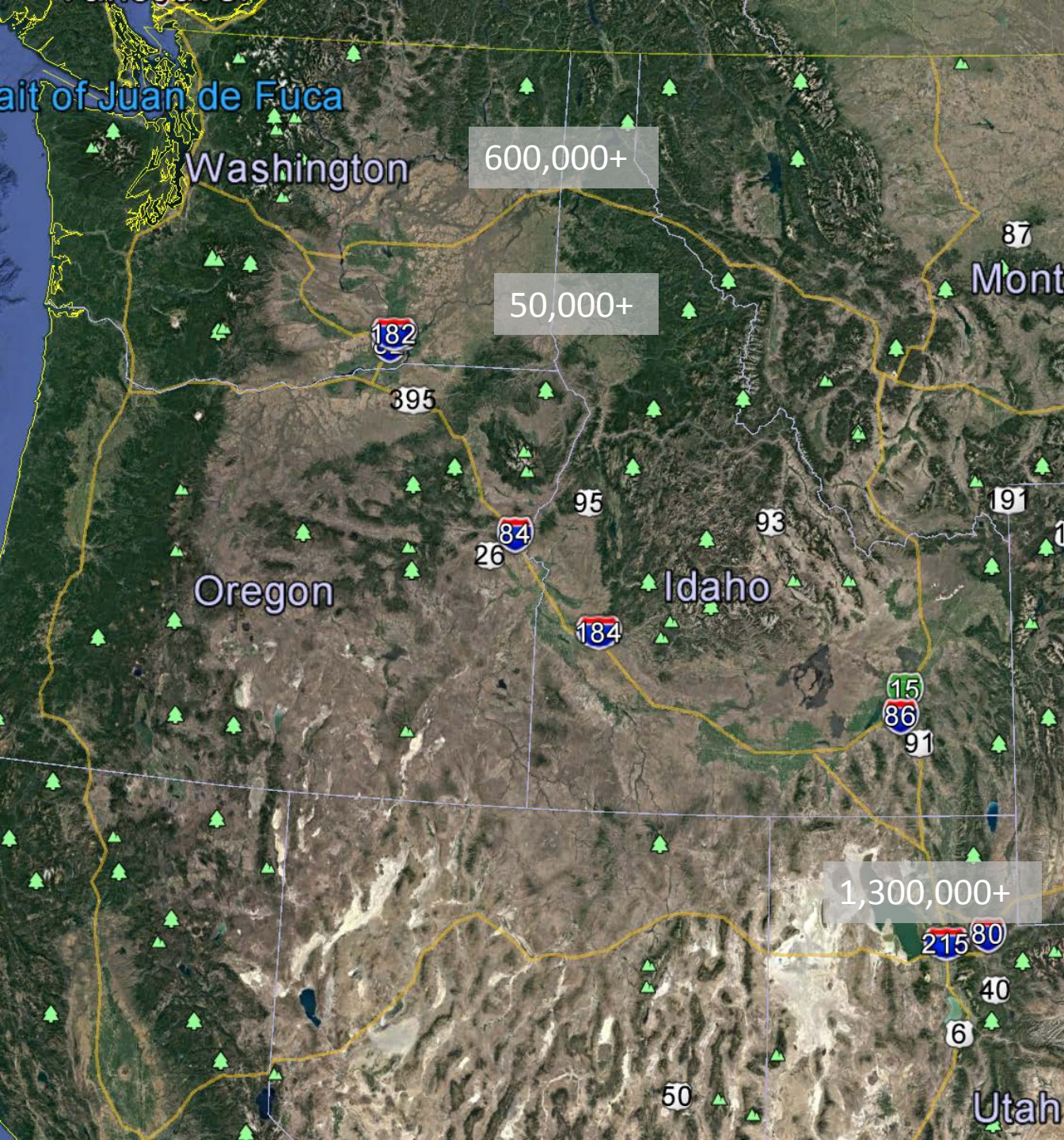




Outreach events:
Nestbox building event w/ Mark Miller Subaru.

Engage scout troops, high school students in box building, monitoring efforts while delivering information about climate change and conservation of Kestrels, cavity nesters in general, and other wildlife





Future plans:

Gradient of urban intensity and size

Professional development opportunities for young conservation professionals

Smaller projects nested w/ overall study



Thanks to our citizen scientists, partners, and donors!!

- The Nature Conservancy
- Salt Lake County Parks and Open Spaces
- Salt Lake City Parks
- The University of Utah
- Antelope Island State Park
- Rocky Mtn Power
- Heber Power and Light
- Mark Miller Subaru
- Boise State University
- UCLA



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Questions?

