

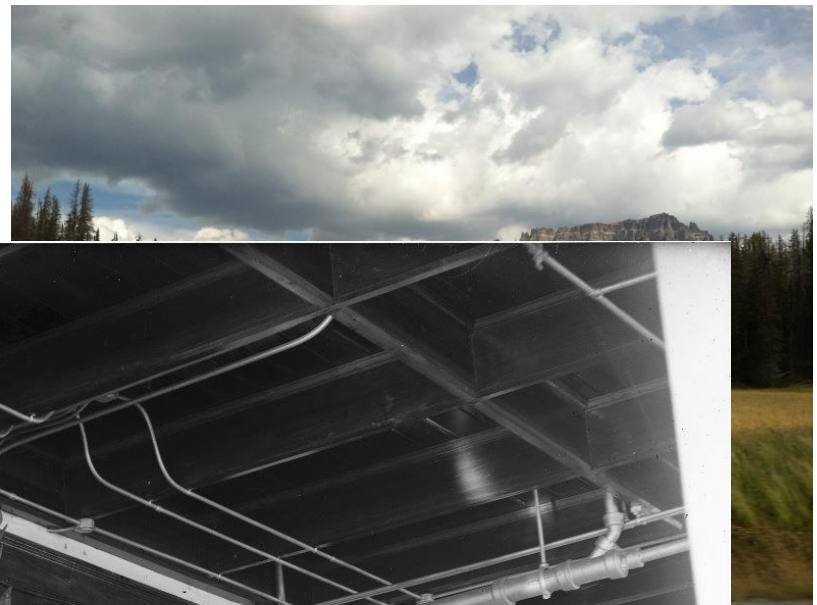
# Research and Other Uses of Images and Digitized Specimen Data



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# The UWYMV



S. H. Knight Collection, American Heritage Center, University of Wyoming

# The UWYMV



 **Arctos**  
Collaborative Collection Management Solution

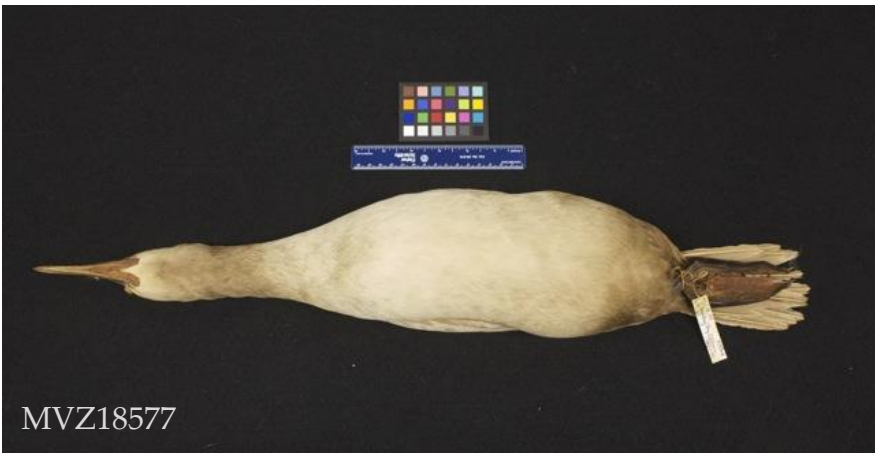
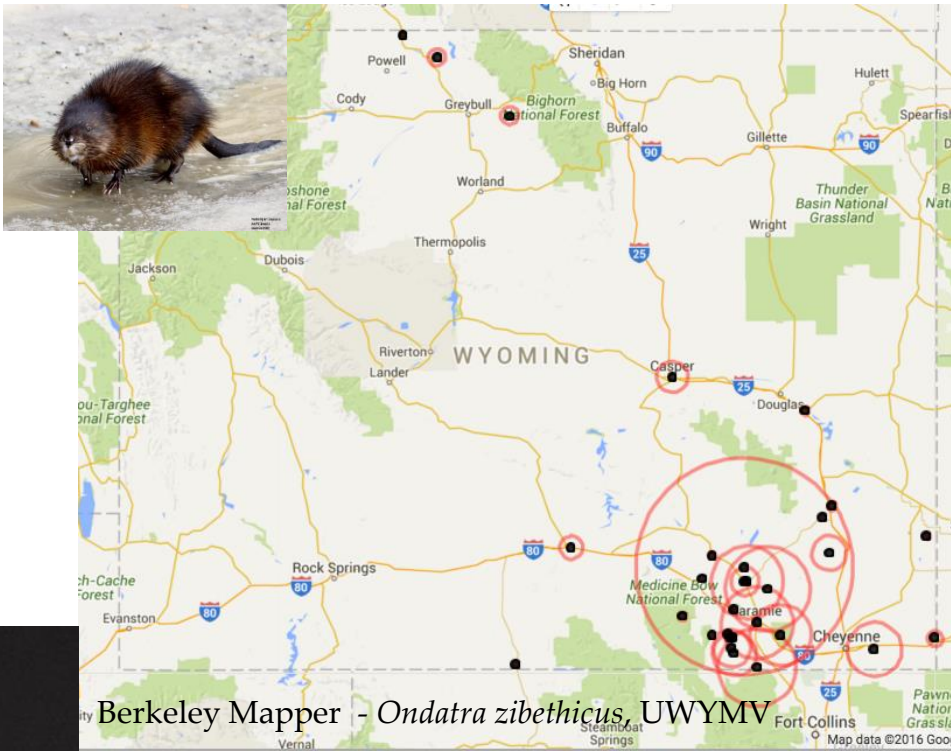


- 2638 bird specimens (skins, skeletons, eggs, and nests)
- 6341 mammal specimens (skins, pelts, and skeletons)
- 661 herp specimens (alcohols)
- 3064 fish specimens (alcohols)

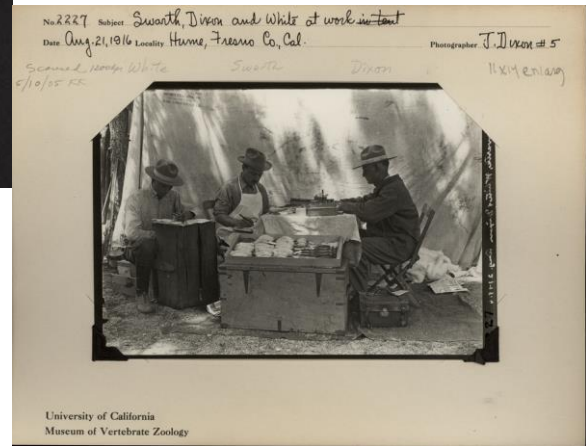
# Digitized Data, Museums, and Research

Types of digitized media and data:

- Morphological information
- Georeferenced localities
- Photos
- Recordings
- Field notes and journals



MVZ18577

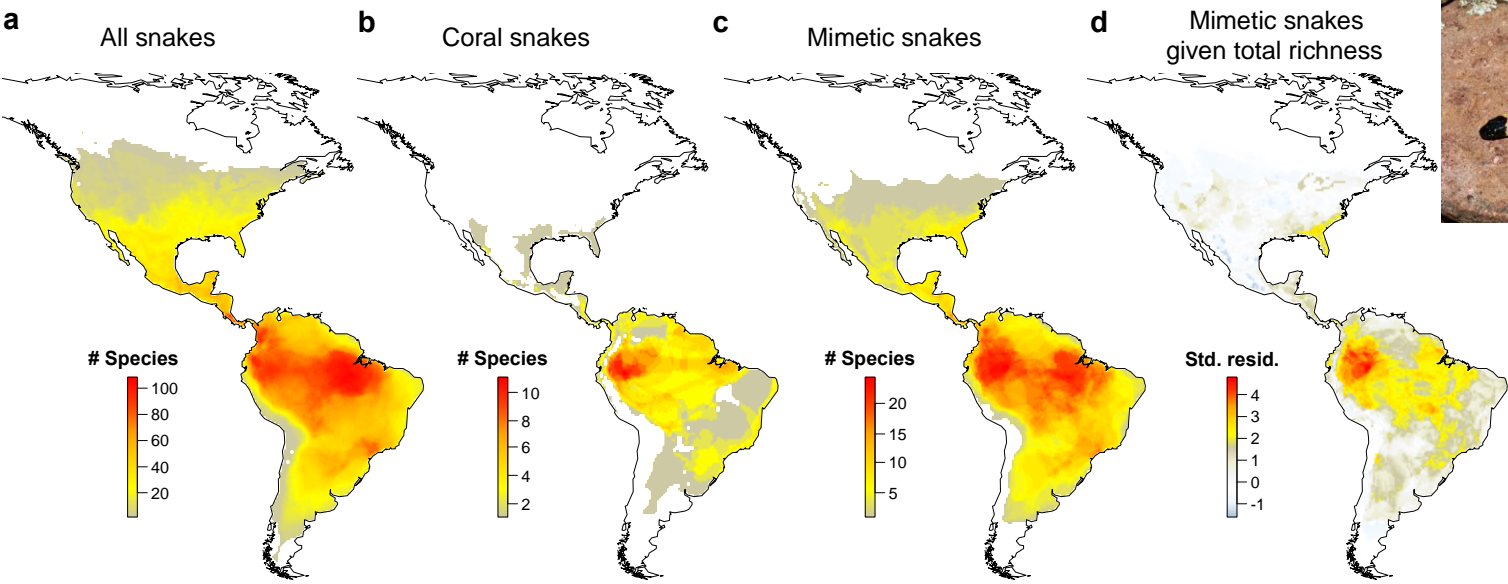


No. 2227 Swath, Dixon and White at work instant  
Date Aug. 21, 1916 Locality Home, Fresno Co., Cal. Photographer J. J. Dixon et al. 5  
Swath, Dixon, White  
5/10/15 K

# Research with Digitized Data

Georeferenced locations

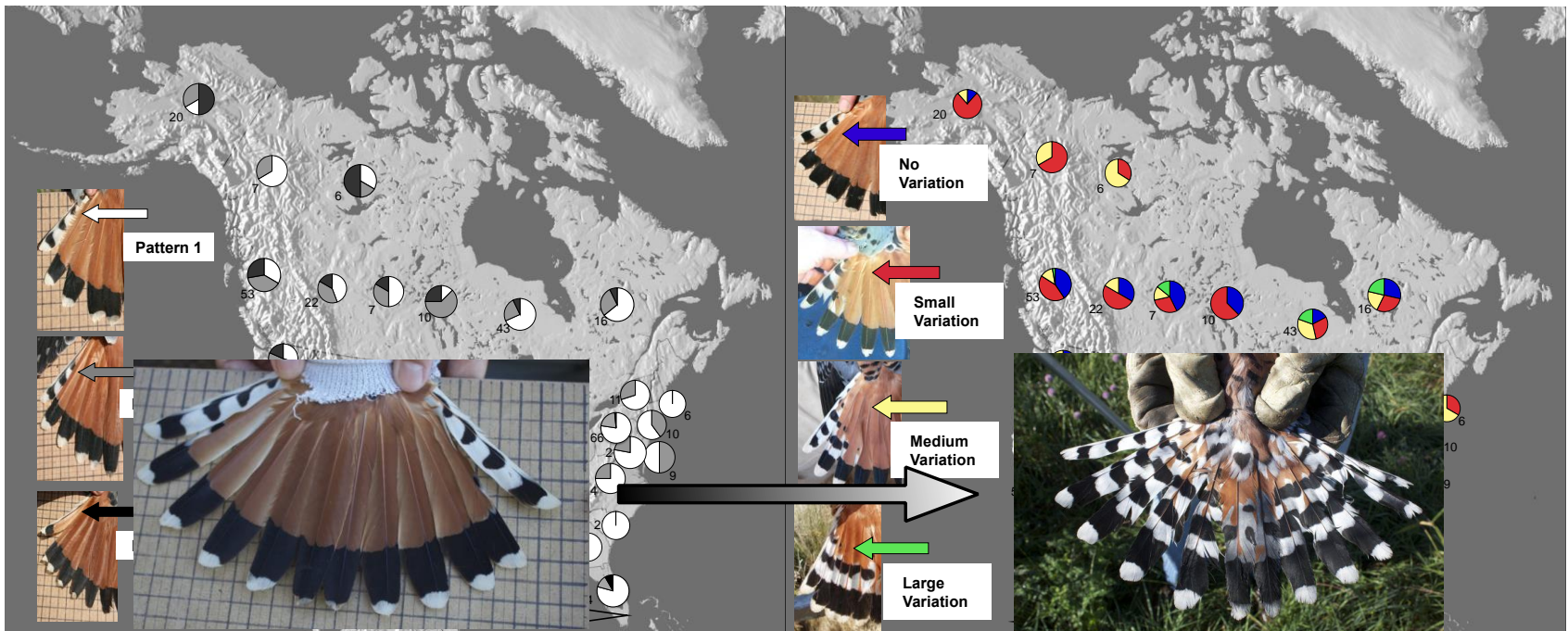
Batesian mimicry in snakes across the New World



# Research with Digitized Data

## Photographs

## Identification of morphs in birds



# Research with Digitized Data

## Recordings

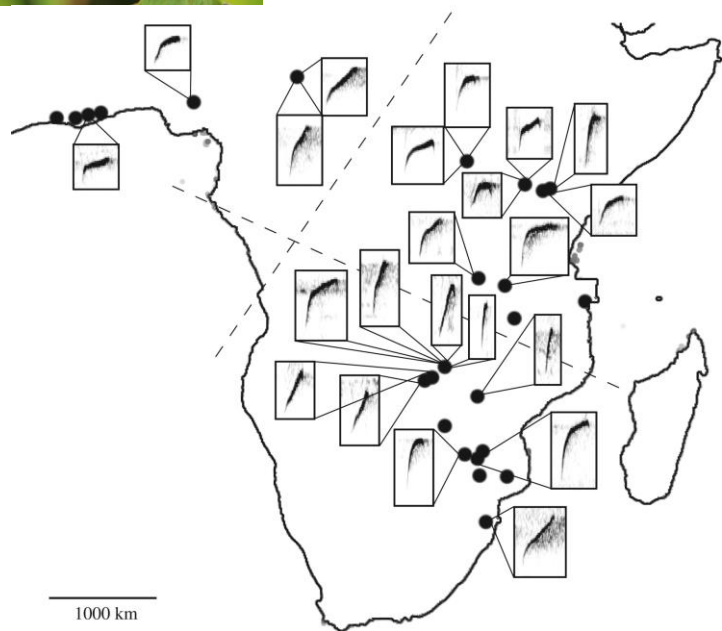
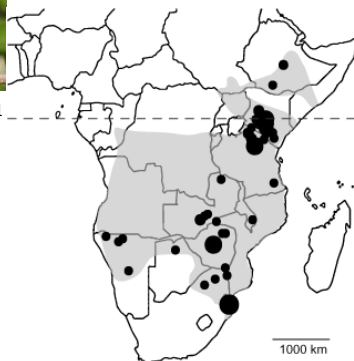
Species evolution and song variation in African *Cisticolas*



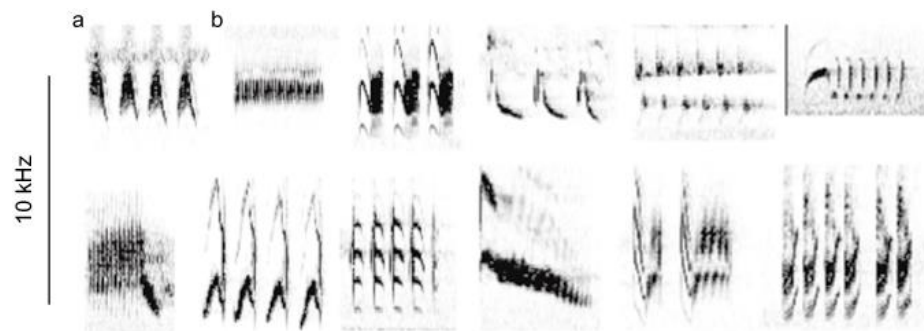
Red-faced Cisticola



Rattling Cisticola



Benedict and Bowie 2009

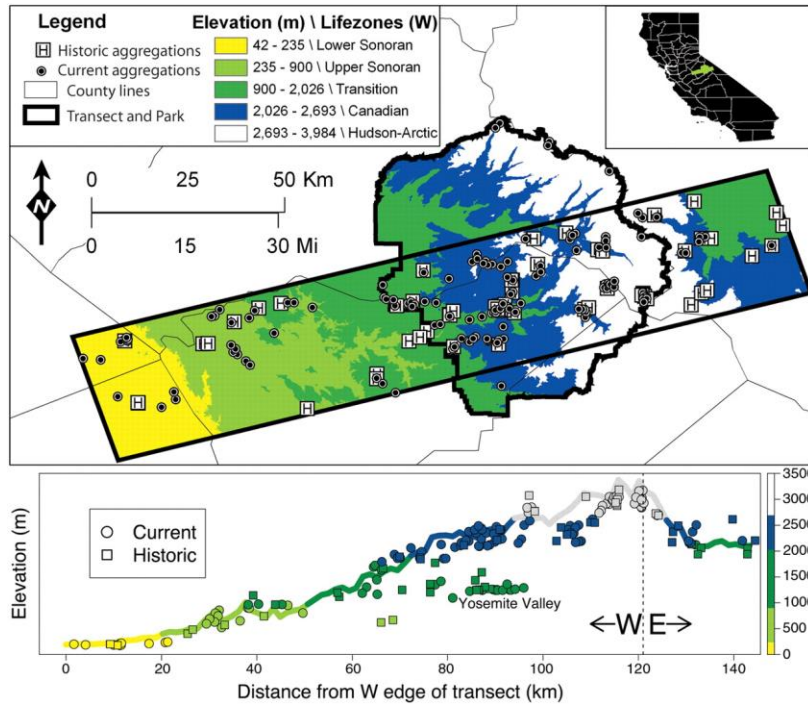
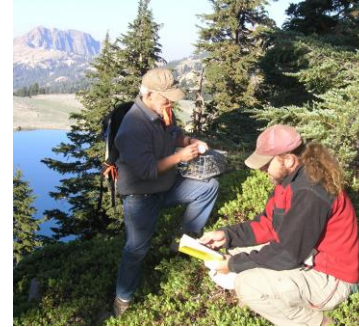


Benedict and Bowie 2012

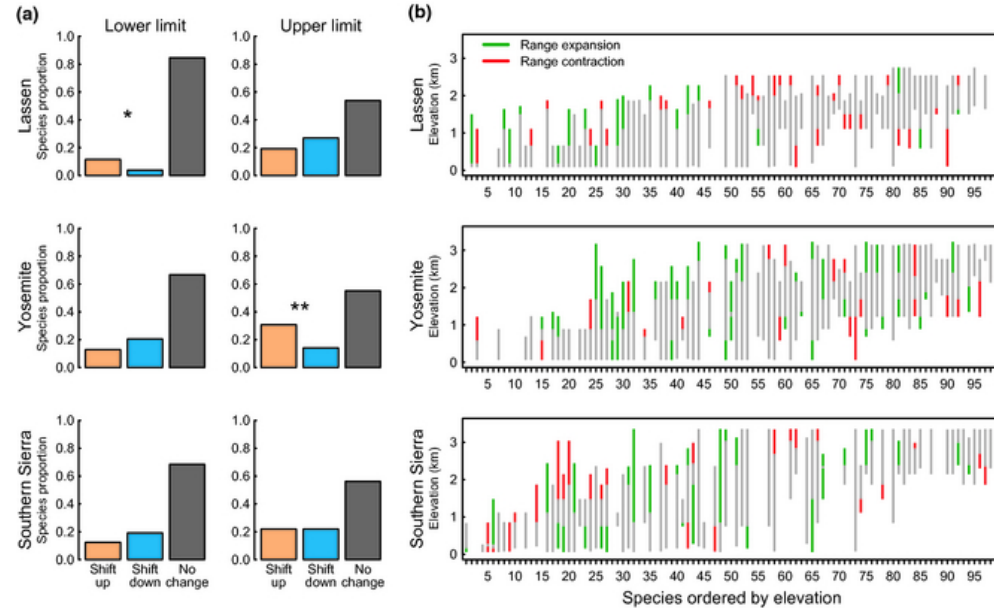
# Research with Digitized Data

## Field Journals

Resurveys track changes in species across time and space



Moritz *et al.* 2008



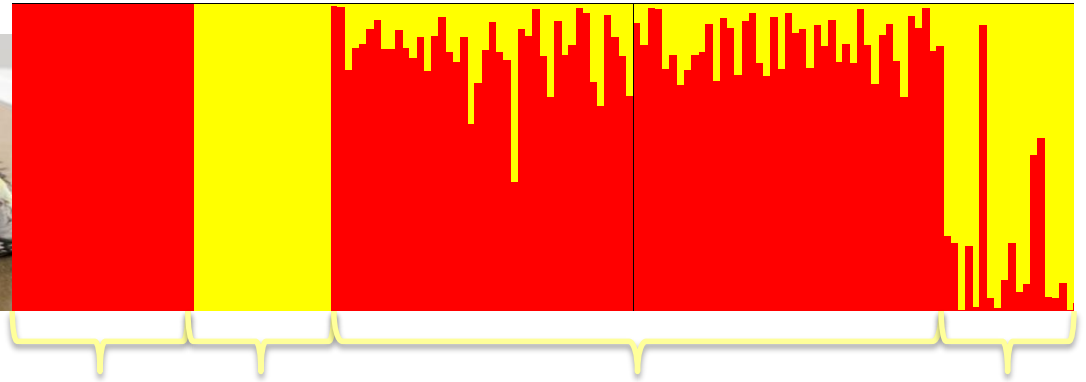
Tingley *et al.* 2012



# What other types of data should museum's be saving?

Shawn Billerman 2016

- Genetics/Genomics



Current  
Hybrid  
Zone

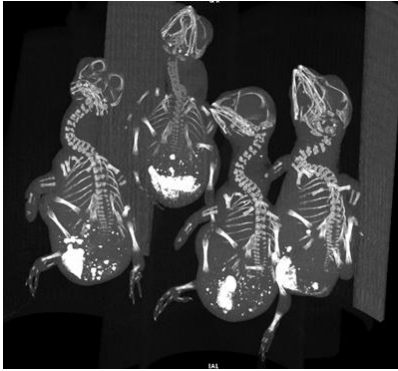
Historic  
Hybrid  
Zone

- Videos

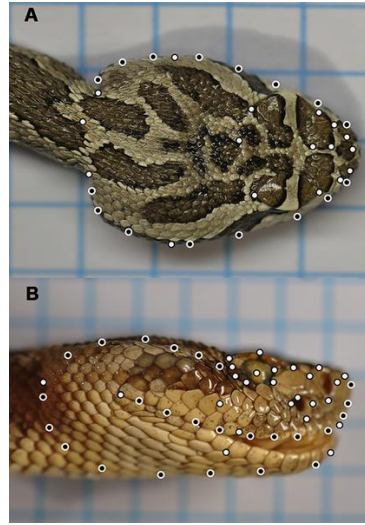


# What other types of data should museum's be saving?

- Scans and Morphometrics

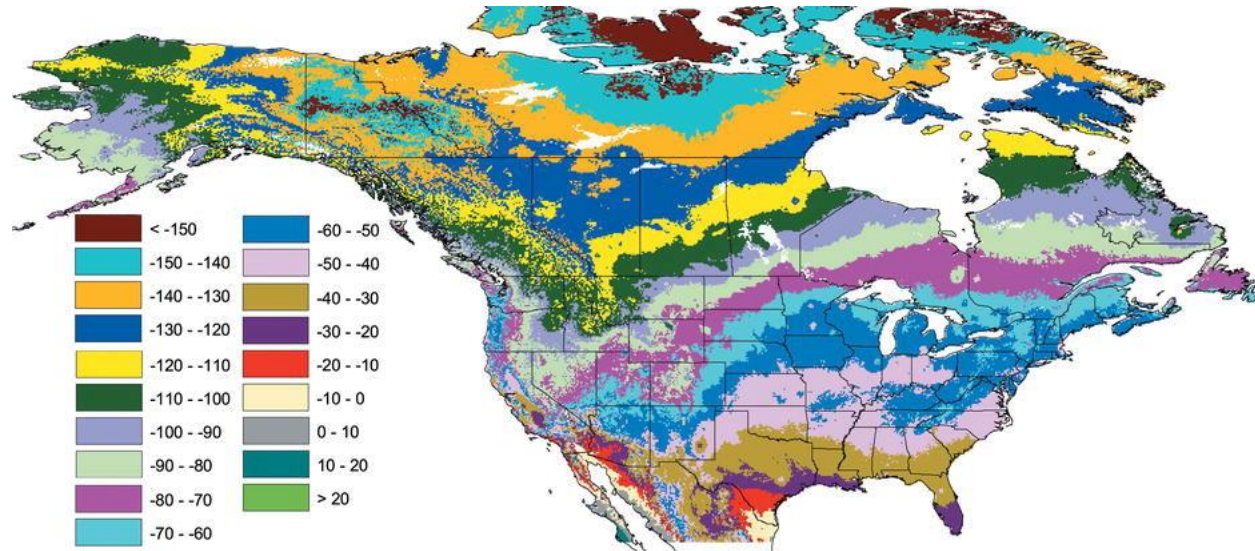


Jessie Atterholt 2015



Davis *et al.* 2016

- Isotopic Data



Lott and Smith 2006

# Ways to Encourage Data Use?

How do we encourage data use by the research community?

- Innovative new ways of collecting data

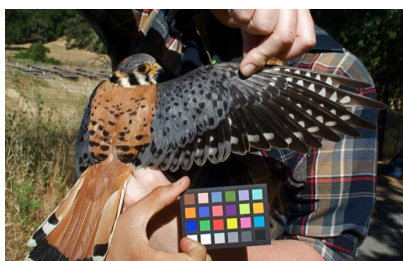


Photo from John Demboski

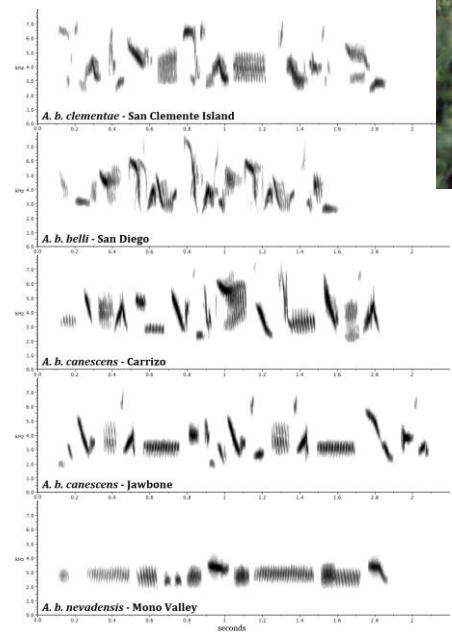


# Ways to Encourage Data Use?

- Develop protocols and funds for use of research collected specimens



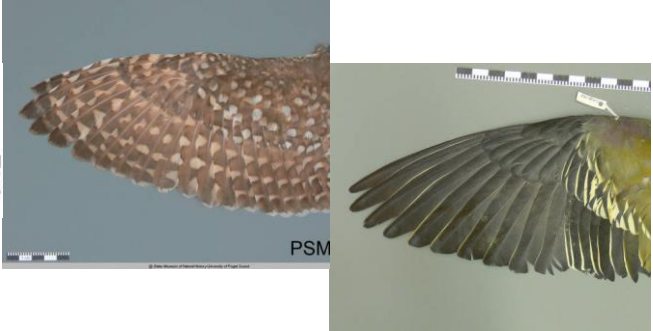
Photos from Katie Wagner



Spectrograms from Carla Cicero

- Think outside of the cabinet and engage citizen science communities

eBird



# Acknowledgements and Questions



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