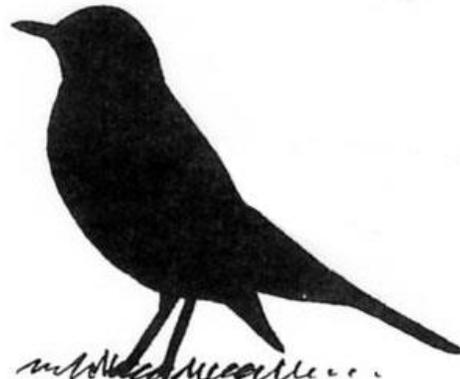


Size

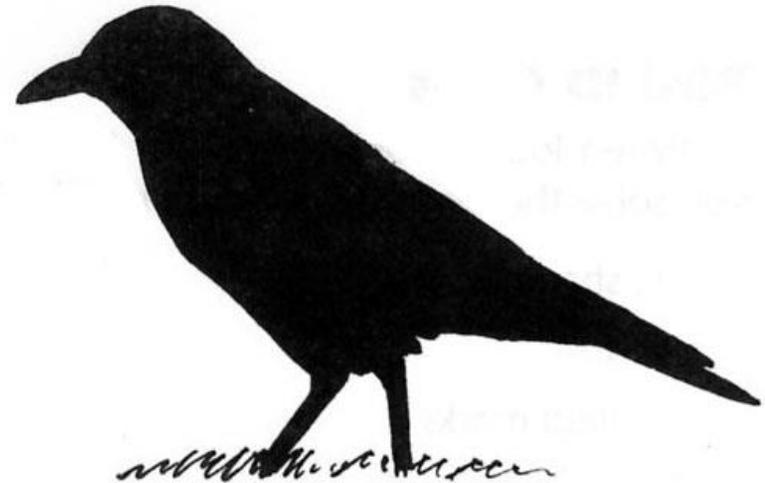
Use these common birds as reference points when looking at sizes in field guides



House Sparrow
(5-6 inches)
small

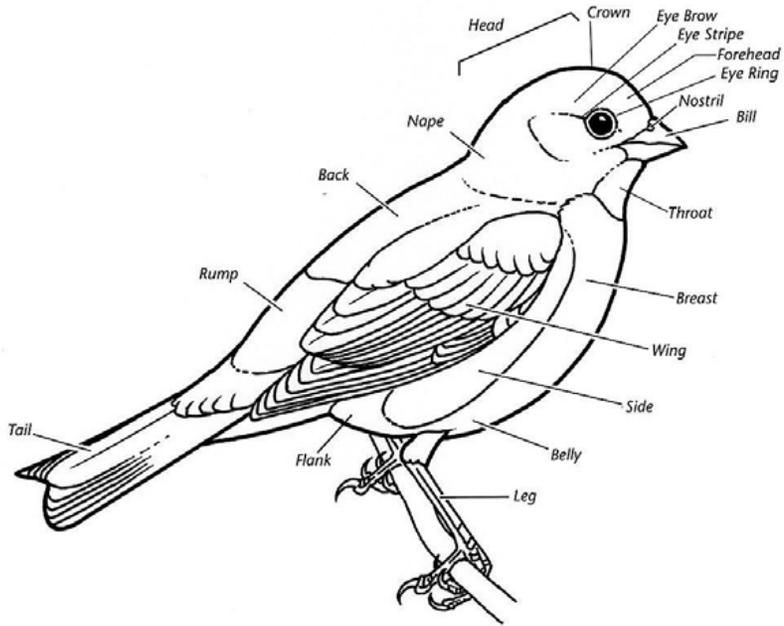


American Robin
(10 inches)
medium

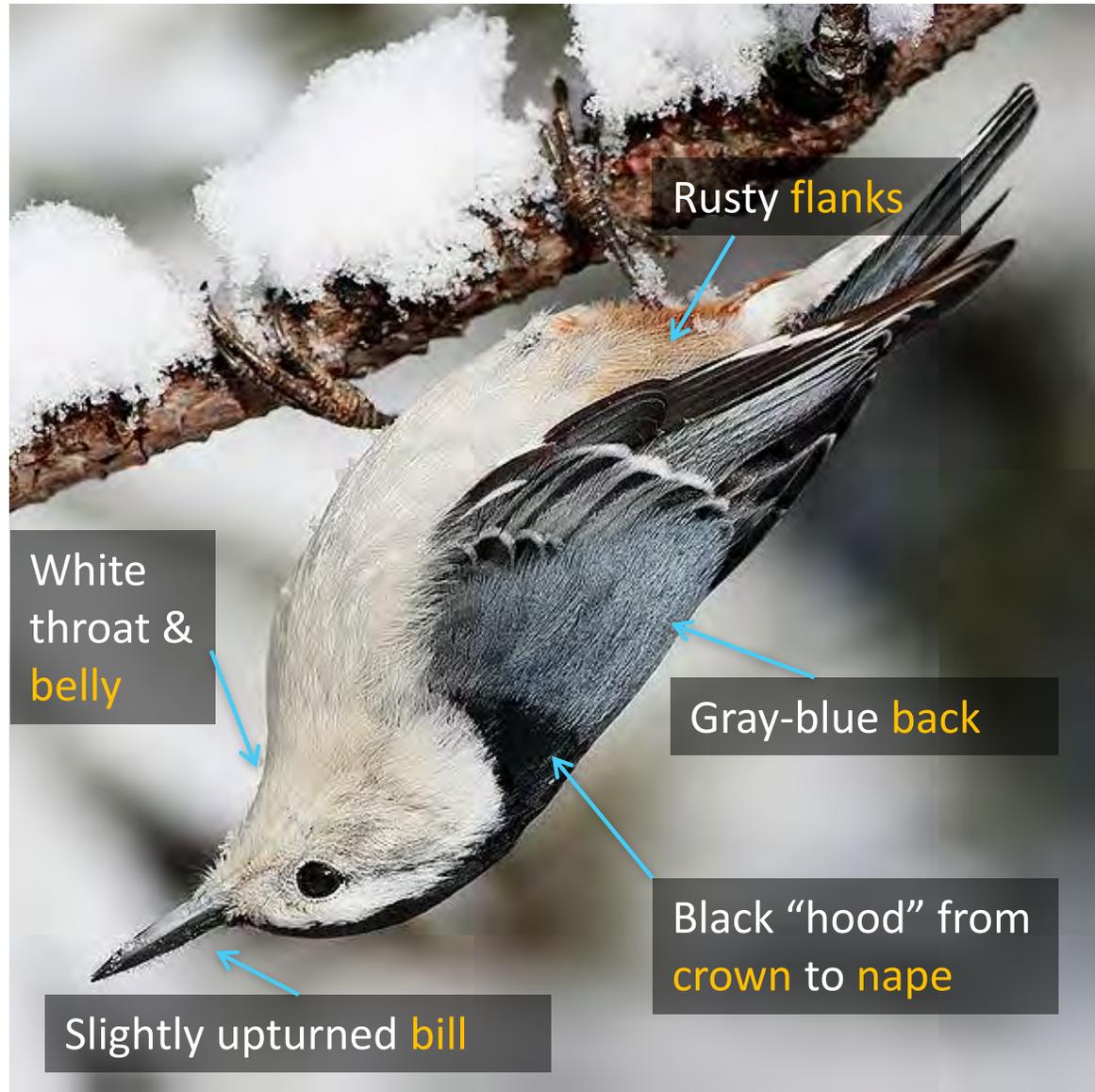


American Crow
(17-21 inches)
large

Field Marks



From BirdSleuth Most Wanted Birds © Cornell Lab of Ornithology



Sound

You'll often hear more than you'll see

- You already know some bird calls
- Sound can help you find a bird



Habitat



≠





USFWS, Flickr Creative Commons

Behavior

- Many birds have distinctive behaviors
 - Foraging
 - Flight
 - Displays



Counting Birds for Conservation

Get involved with citizen science



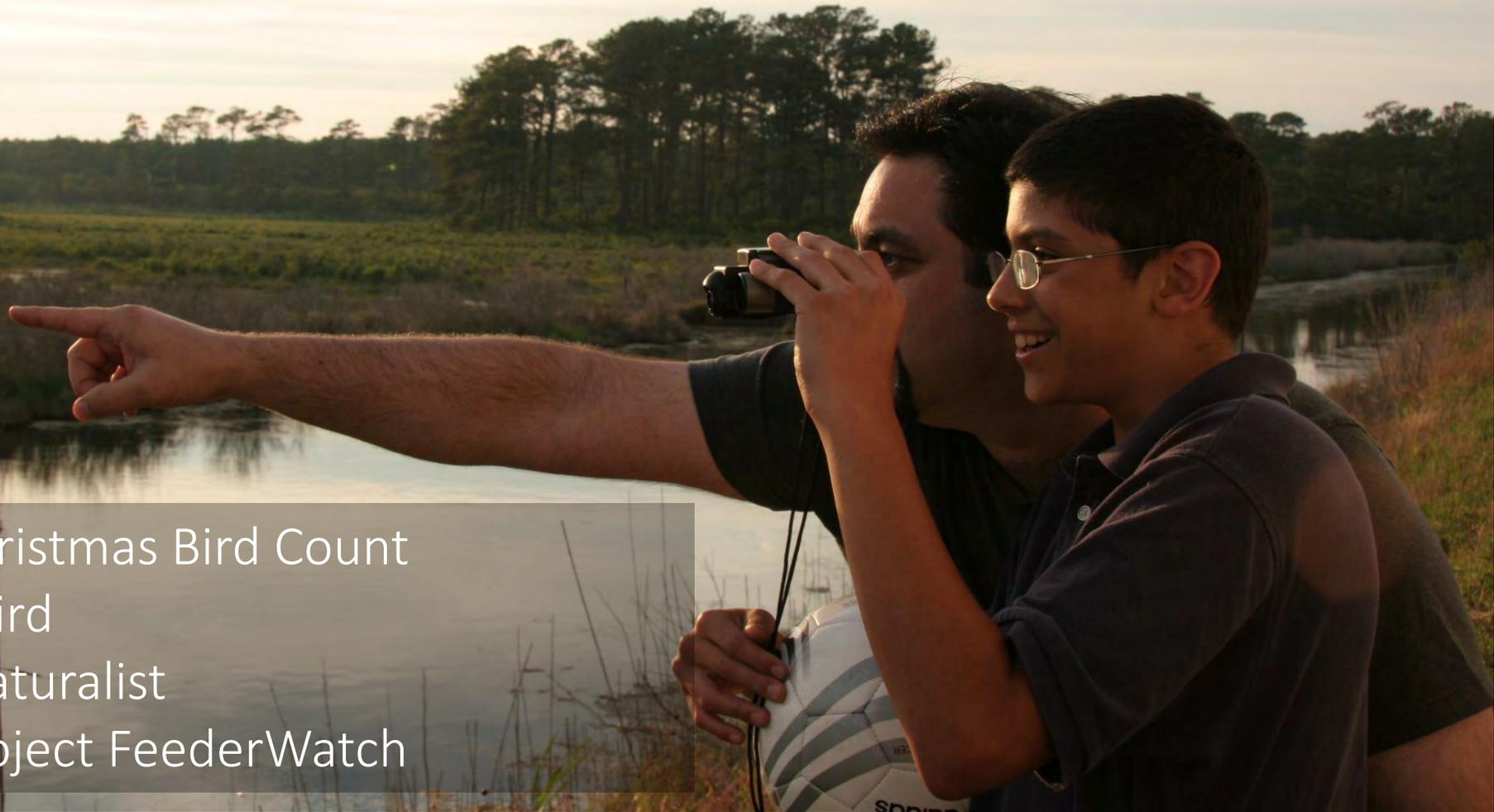
Jonny Hunter, Flickr Creative Commons



Get Involved: Citizen Science

- Accessible way to contribute to bird research and conservation

- Christmas Bird Count
- eBird
- iNaturalist
- Project FeederWatch





Christmas Bird Count



- 1900 – Audubon Society
 - Response to growing conservation movement.
 - Don't shoot! Count!
- Longest running wildlife survey in North America
- December to January every year



Brendan Lally

Breeding Bird Survey



- 1966 – U.S. Geological Survey
- Goal: Collect data on bird populations in Canada and U.S.
- Count birds during height of breeding season.
- Trends for 420 species.



Great Backyard Bird Count

The **Cornell** Lab of Ornithology



- Four days in February:
 - Count birds anywhere for at least 15 minutes.
 - Keep track of time.
 - Best estimate of number of birds of each species recorded during count period.
 - New checklist for each day, for each location, and time of day.
- Data entry in www.birdcount.org linked to eBird

Project FeederWatch

- 1976 in Canada, Cornell partnered in 1987.
- Count birds at your feeders
- November – April annually.
- Can be done at home, at work, or in the classroom.



James Schumacher

eBird

- Started 2002
- Spatial & temporal bird abundance & distribution
- Excellent resource for birders *and* researchers
- Accepts casual observations, stationary counts, walking counts



iNaturalist



- Started in 2008
- Naturalist community built around shared observations of biota in nature
- Presence data, digitally vouchered with image or sound file
- Identifications through community consensus
- Platform for Texas Nature Trackers projects





ADD OBSERVATIONS



Birds of Texas

Stats

Totals

59599

Observations »

625

Species »

403

People »

Most Observations



greglasley
8388 observations



taogirl
4073 observations



sambiology
3893 observations



scottbuckel
2470 observations



denver
2396 observations

Most Species



greglasley
515 species



mikaelb
333 species



annikaml
327 species



gpstewart
278 species



cullen
276 species

Most Observed Species



Northern Cardinal
1597 observations



Great Blue Heron
1497 observations



Great Egret
1423 observations



Mallard
1195 observations



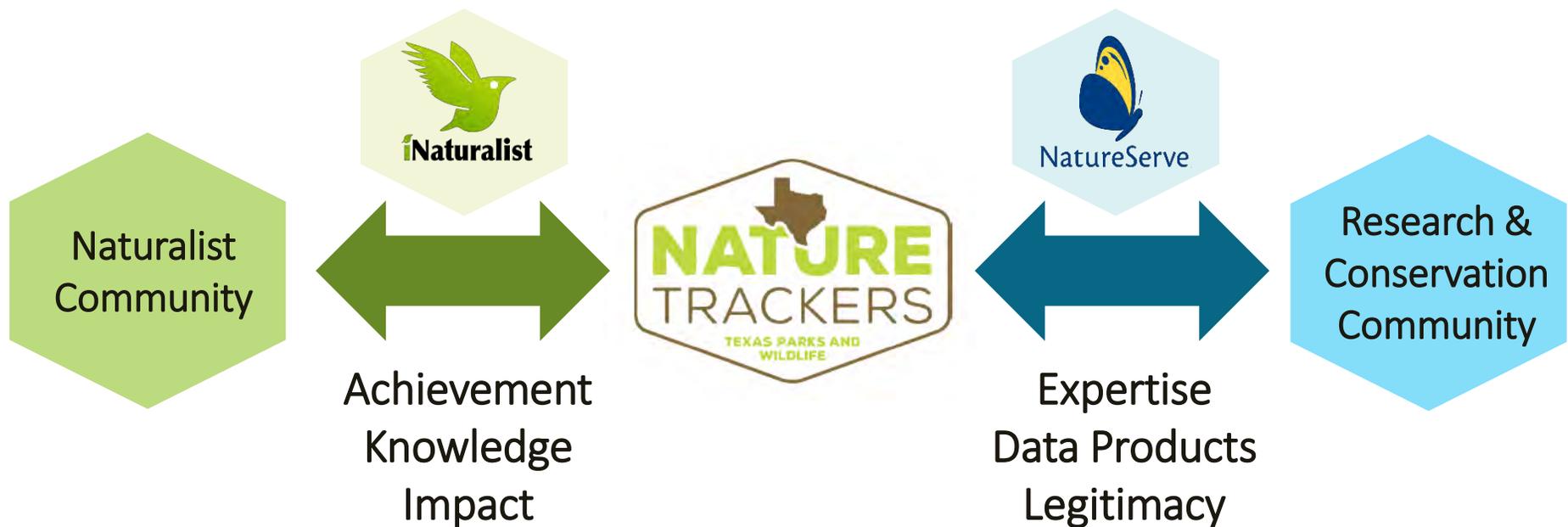
Northern Mockingbird
1181 observations



Texas Nature Trackers Program

Goals:

- Grow & enrich the naturalist community & experience
- Contribute to research & inform conservation decisions





How It Works



Record your observations

Share with fellow naturalists

Discuss your findings

How iNaturalist Works

Who you are

You'll need to make an **iNaturalist account** and please only post your own personal observations



What you saw

Choose a group of organisms like **butterflies** or better yet a specific organism like the **Monarch butterfly**. If you provide evidence you can leave this blank and the **community can help**

Where you saw it

Record both the coordinates of the encounter as well as their accuracy. You can obscure the location from the public



When you saw it

Record the date of your encounter, not the date you post it to iNaturalist



Evidence of what you saw

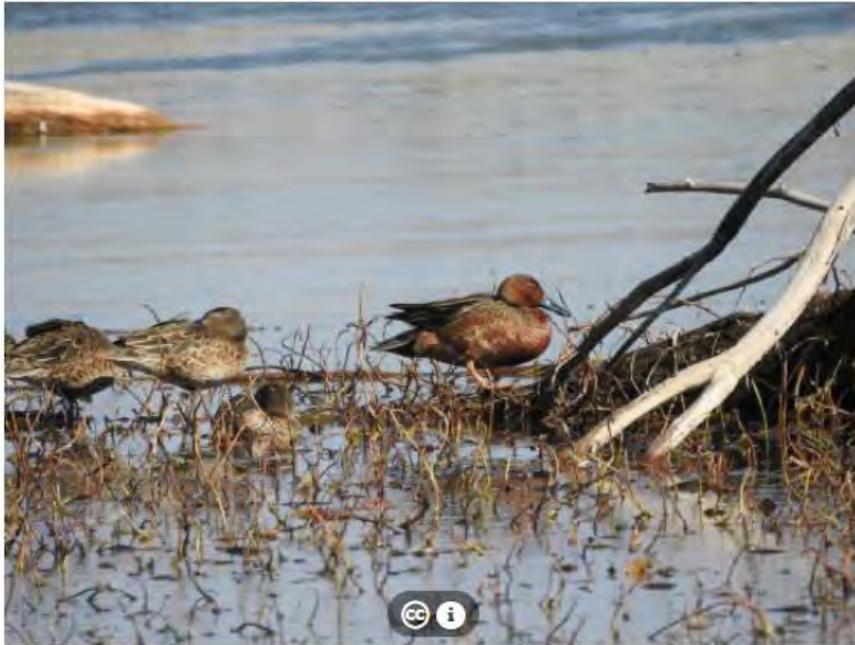
By including evidence like a **photo or sound**, the community can help add, improve, or confirm the identification of the organism you encountered. Help the community by taking clear well framed photos, by including multiple photos from different angles





Cinnamon Teal (*Spatula cyanoptera*) Research Grade

[Edit](#) ▾



taniahomayoun
👤 859 observations



Observed:
Jan 20, 2018

Submitted:
Jan 21, 2018 - 12:04 PM CST

Map Satellite

Hidalgo County, TX, USA [Details ▾](#)

☆ Be the first to fave this observation!

Activity



taniahomayoun suggested an ID

🏆 Improving 25d ▾



Cinnamon Teal
Spatula cyanoptera

🔍 Compare

Community ID

[What's this?](#)

Cinnamon Teal (*Spatula cyanoptera*)

Cumulative IDs: 5 of 5



0 2/3rds 5

Activity

- 

taniahomayoun suggested an ID 👤 Improving 25d ▾



Cinnamon Teal

Spatula cyanoptera

⚖ Compare
- 

jbreadhead suggested an ID 25d ▾



Cinnamon Teal

Spatula cyanoptera
- 

jim Sinclair suggested an ID 25d ▾



Cinnamon Teal

Spatula cyanoptera
- 

greglasley suggested an ID 25d ▾



Cinnamon Teal

Spatula cyanoptera
- 

sambiology suggested an ID 23d ▾



Cinnamon Teal

Spatula cyanoptera

Leave a comment

Community ID [What's this?](#)

Cinnamon Teal (*Spatula cyanoptera*) 

Cumulative IDs: 5 of 5



- ✓ Agree

⚖ Compare

i About

✓ Annotations

Attribute	Value	Agree	Disagree
Sex	Select ▾		
Life Stage	Select ▾		

✓ Projects (4)

-
- 

Birds of Texas

⚙
 - 

Lower Rio Grande Valley Wildlife

⚙
 - 

US / Mexico Border Naturalists

⚙
 - 

Birds of the World

⚙

✓ Tags



Top Identifiers of Cinnamon Teal

- joshuagsmith**
#292
- greglasley**
#264
- kevinhinta**
#229
- aguilita**
#228
- d_kluza**
#113
- juancarloslopezdomingu...**
#109
- john8**
#105
- poncho**
#104
- mikepatterson**
#98
- maractwin**
#95

Copyright Info

Observation © Tania Homayoun · some rights reserved



Data Quality Assessment

Quality Grade: **Research**

The [data quality assessment](#) is an evaluation of an observation's accuracy. Research Grade observations may be used by scientists for research. Cast your vote below:

Research Grade Qualification	Yes	No
Date specified	✓	
Location specified	✓	
Has photos or sounds	✓	
Has ID supported by two or more	✓	
Date is accurate	✓👍	👎
Location is accurate	✓👍	👎
Organism is wild	✓👍	👎
Evidence of organism	✓👍	👎
Recent evidence of an organism	✓👍	👎
Community ID at species level or lower	✓	



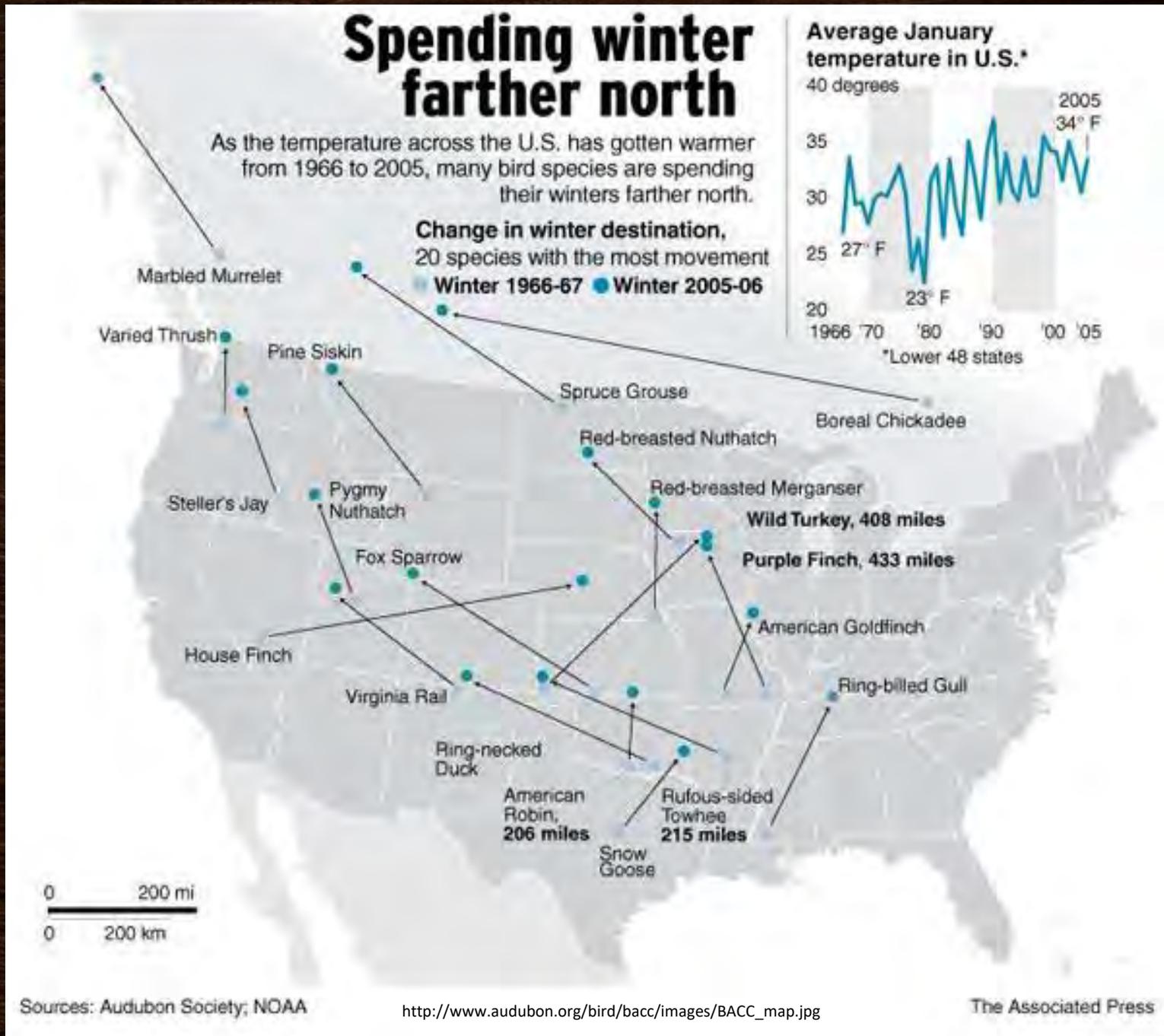
This observation is Research Grade! It can now be used for research and featured on other websites.



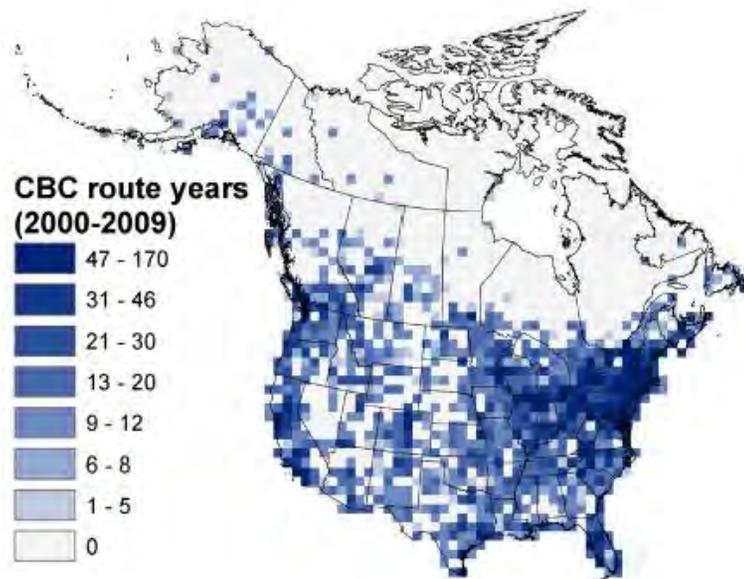
What have we learned so far?



- Looked at winter ranges for 305 species over 40 years
- 117 showed statistically significant shift northward
- Correlated with 5° increase in average January temperature

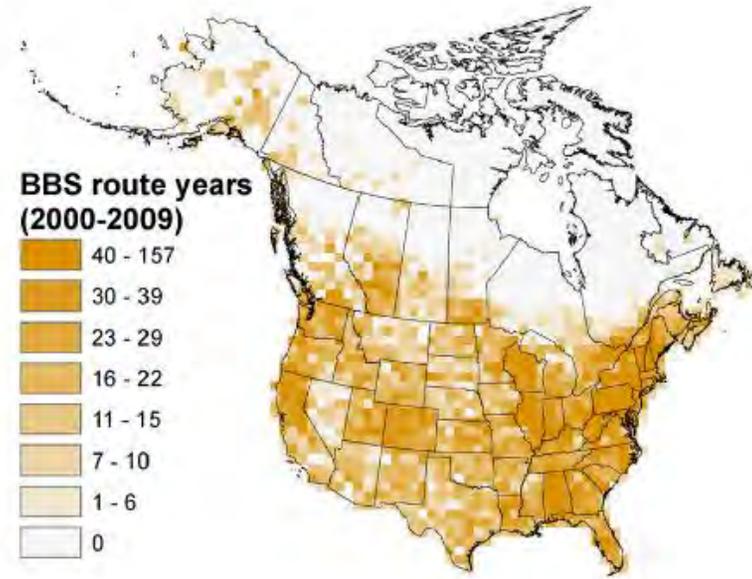


Audubon's Climate Study used data from Christmas Bird Count and North American Breeding Bird Survey



Winter

Audubon Christmas Bird Count



Summer

North American Breeding Bird Survey



Project FeederWatch: Spread of House Finch Disease

- Mycoplasmal conjunctivitis.
- Bacterial infection.
- First seen in DC area 1993-1994.
- Killed ~60% of House Finches in Eastern US in 3 years.
- Diseases tracked via special Project FeederWatch form.



eBird: Documenting and Modeling Bird Distribution

- Species' range
- Movement patterns
- Changes in distribution



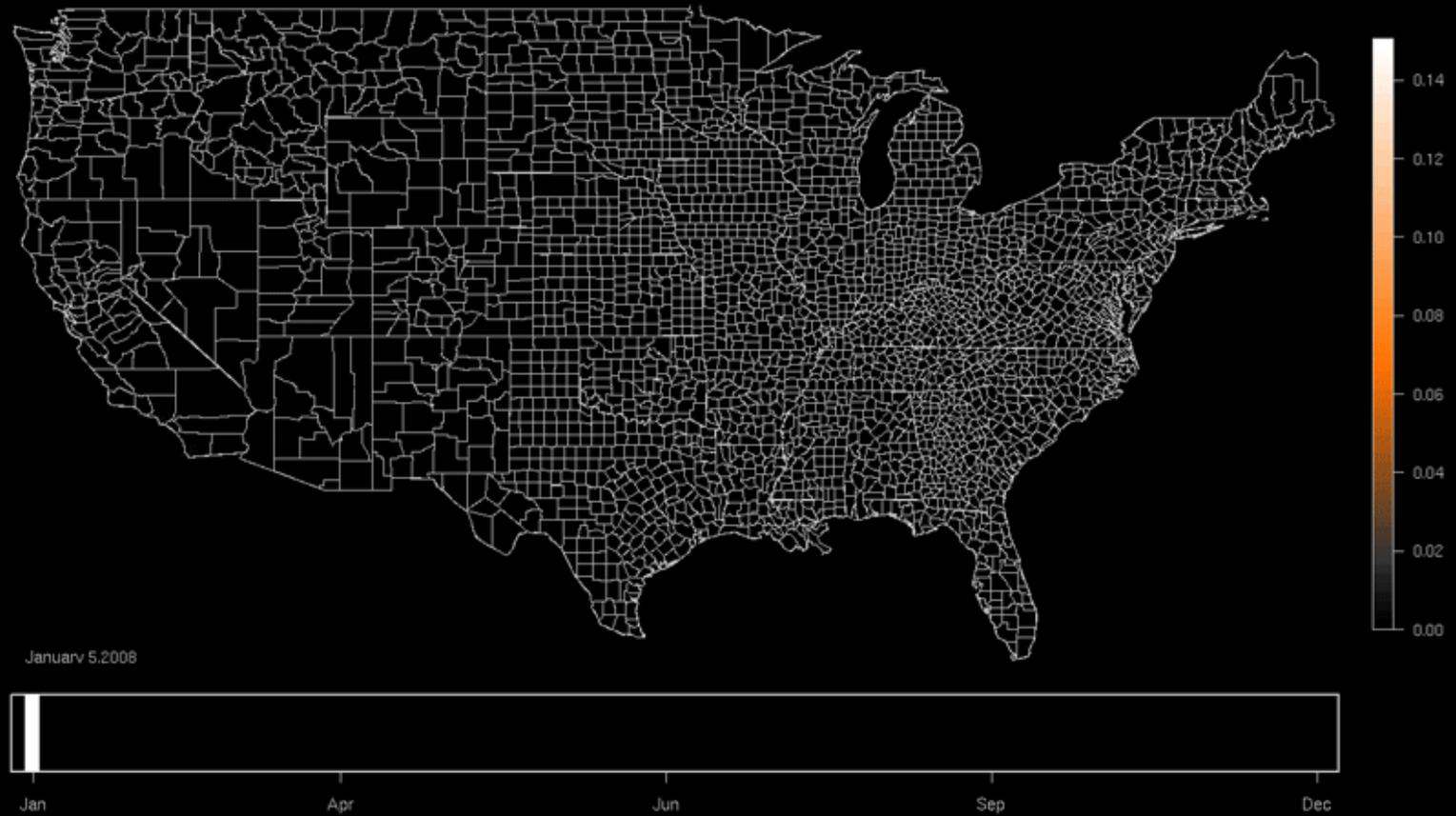
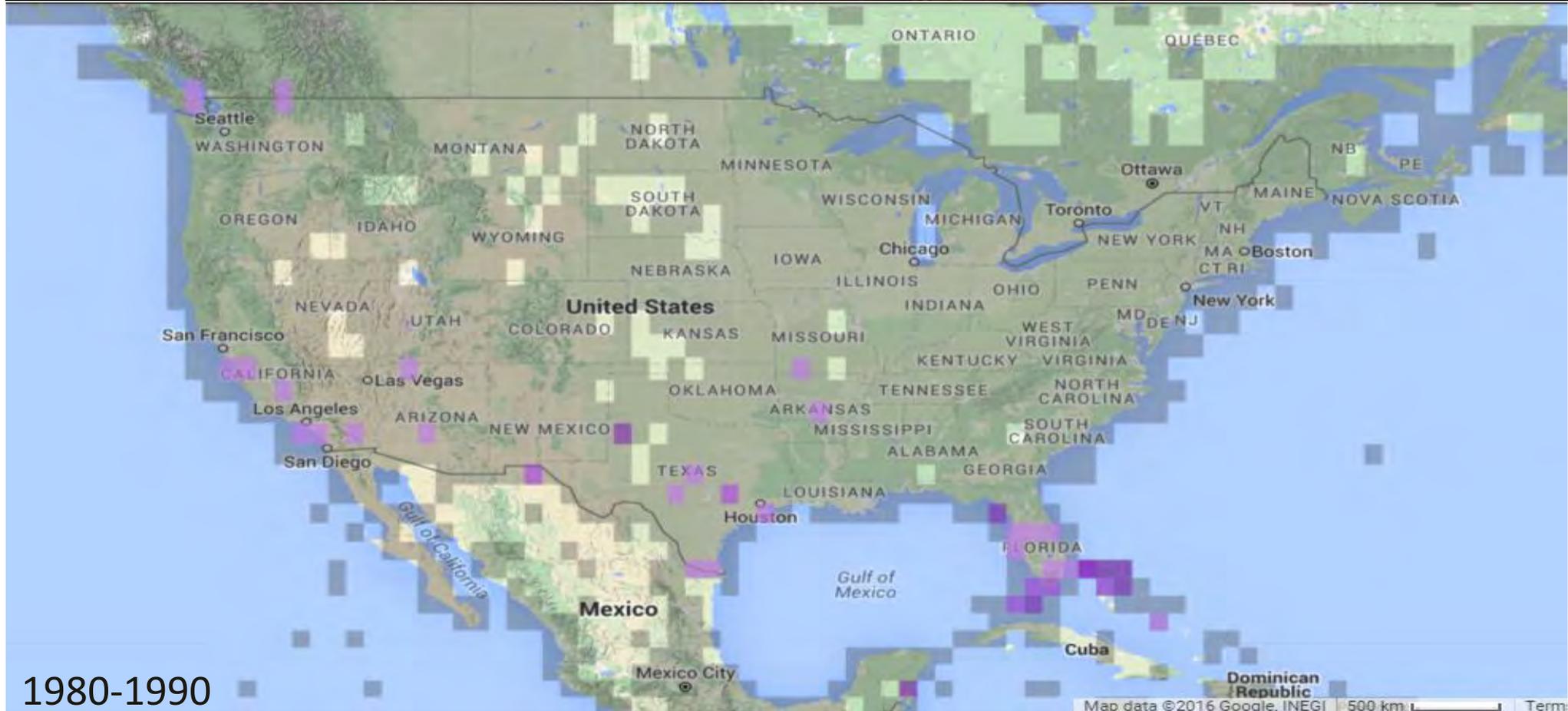


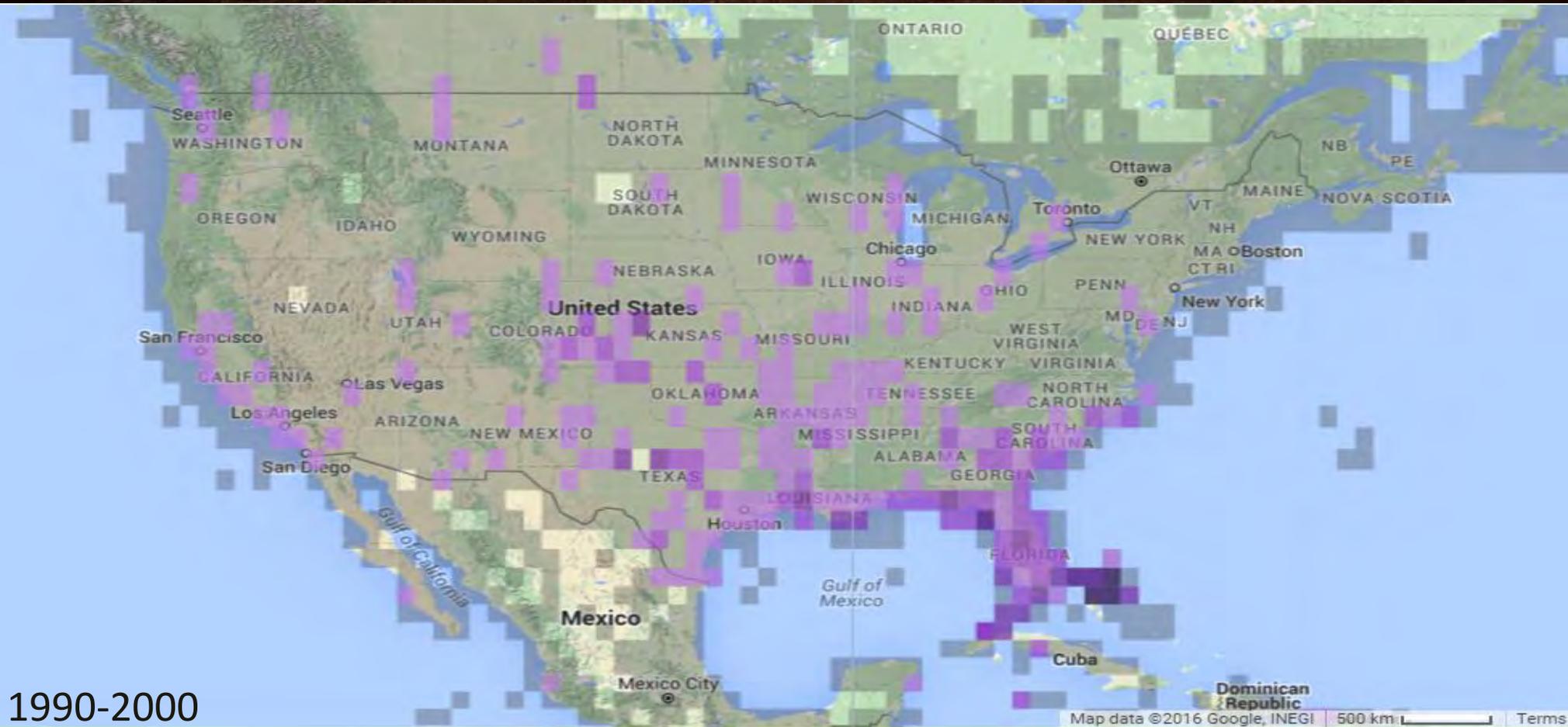
Fig. 1. Orchard Oriole migration as modeled by the Space-Temporal Exploratory Model. The model predicts frequency of occurrence for each day and the animation shows the flow of migrant orioles in and out of the country.

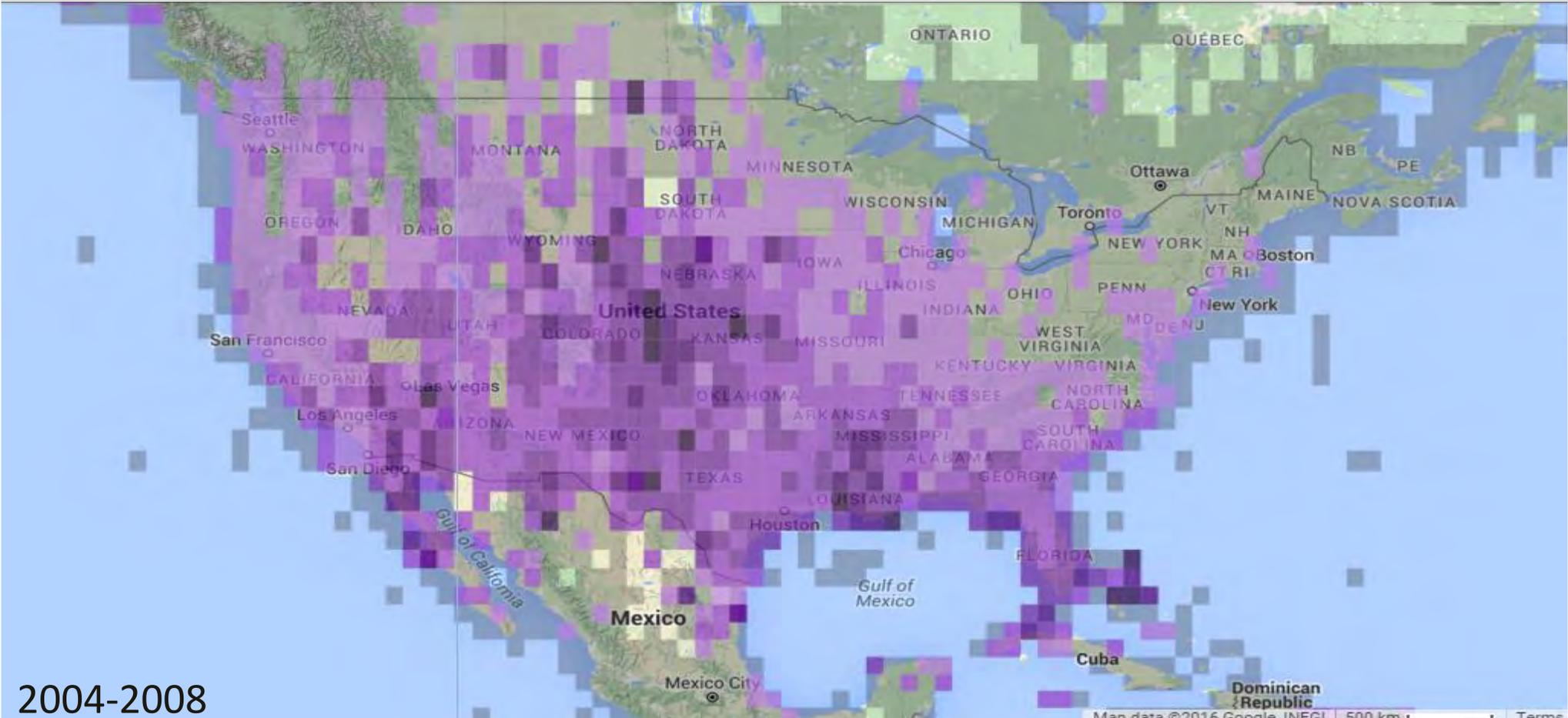


Eurasian Collared-Dove expansion

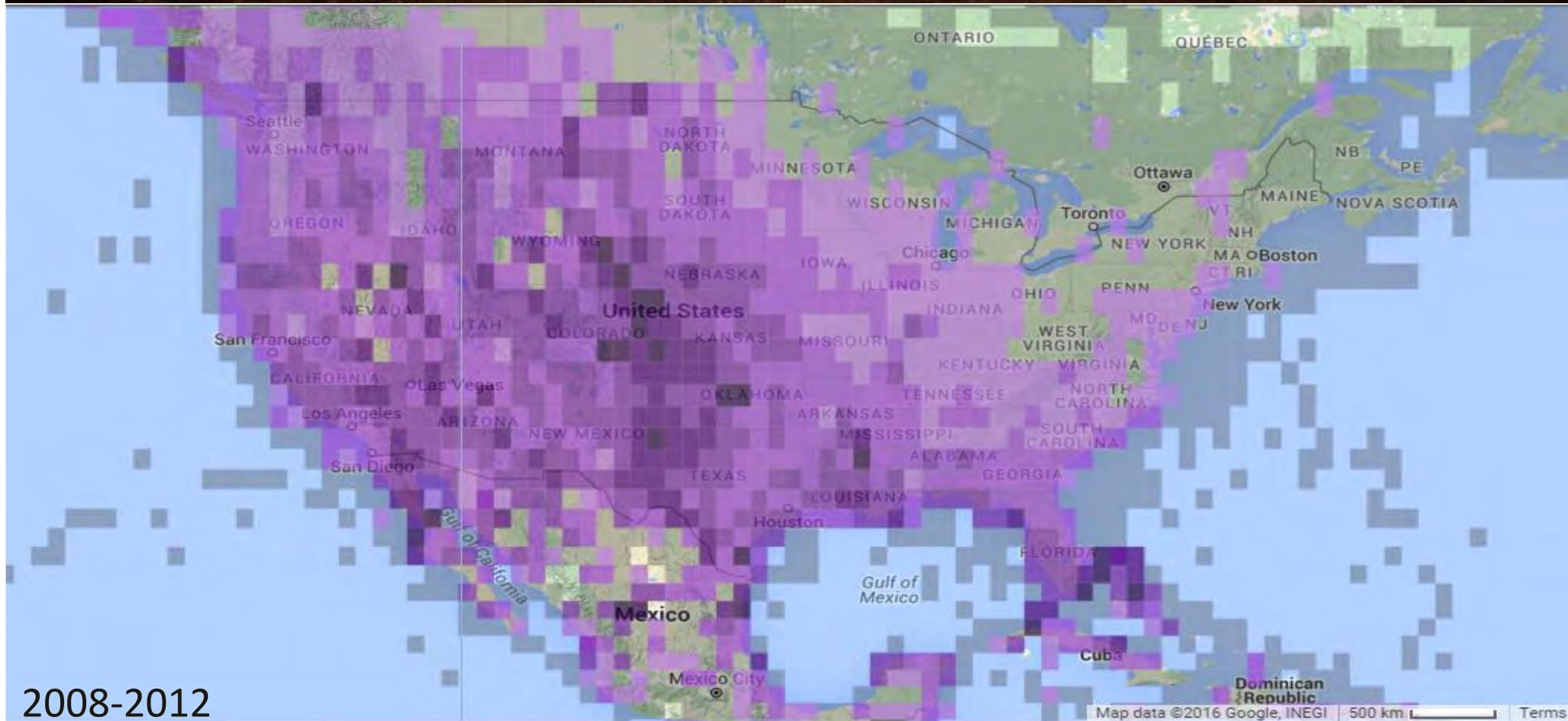


0-2% 2-10% 10-25% 25-40% 40-100% Not Reported





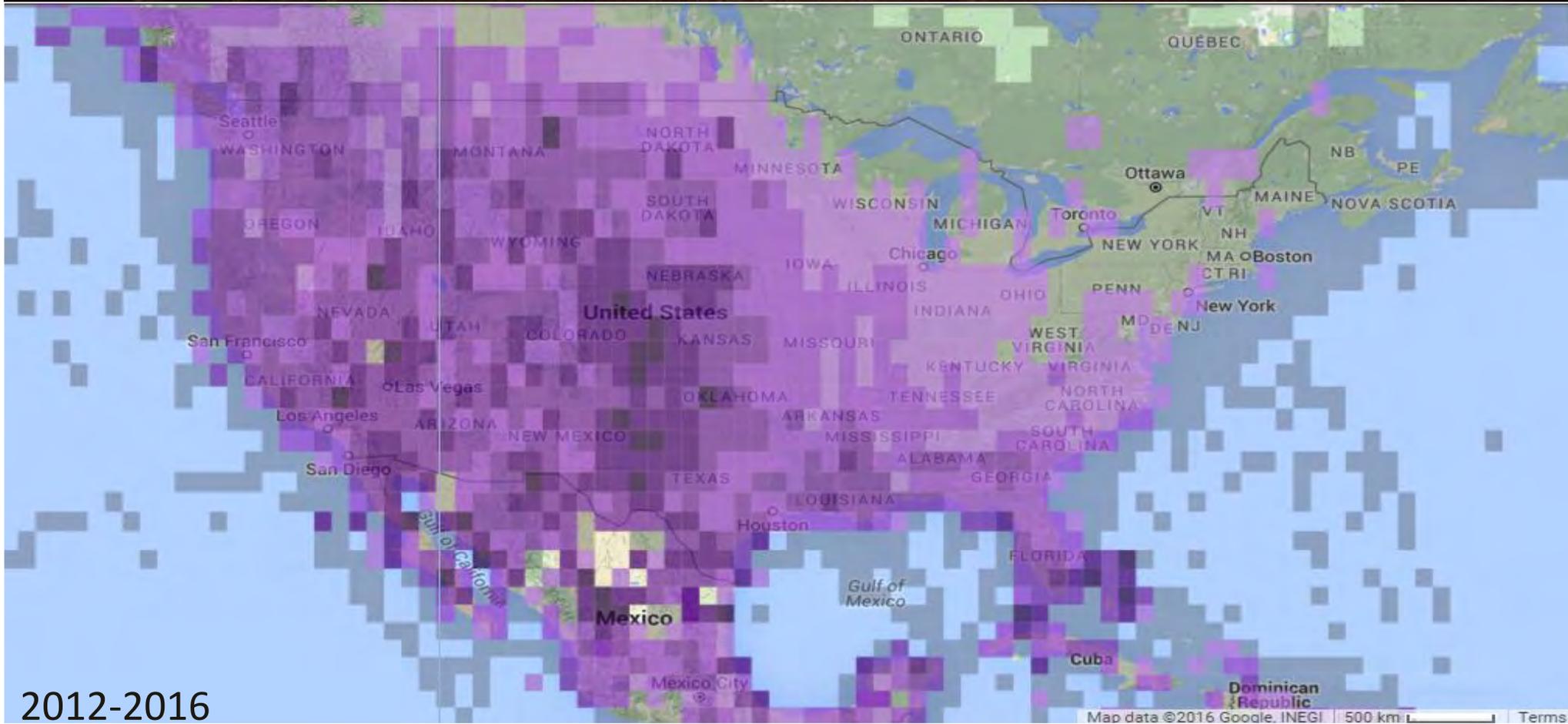
0-2% 2-10% 10-25% 25-40% 40-100% Not Reported



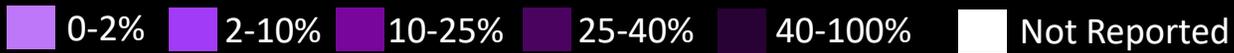
2008-2012

Map data ©2016 Google, INEGI 500 km Terms

- 0-2%
- 2-10%
- 10-25%
- 25-40%
- 40-100%
- Not Reported

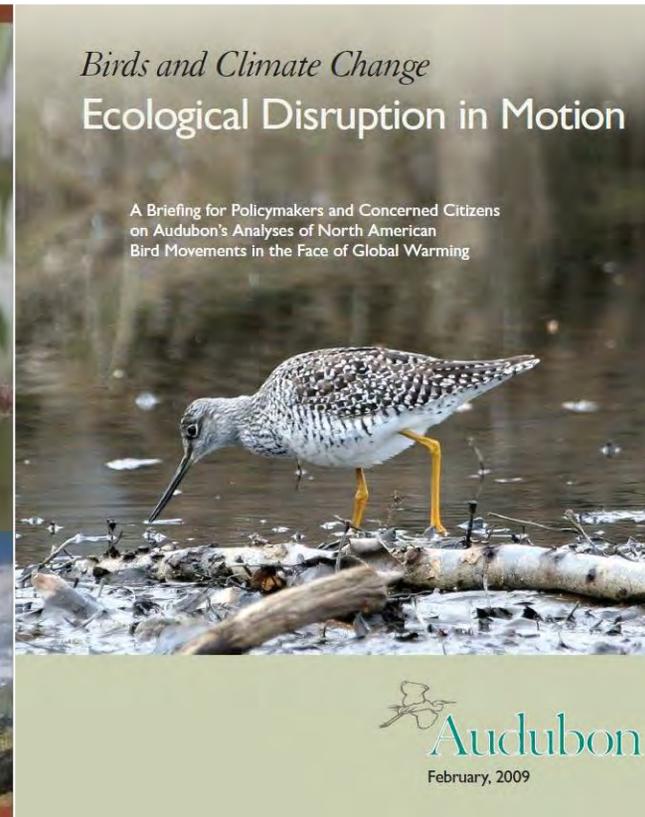
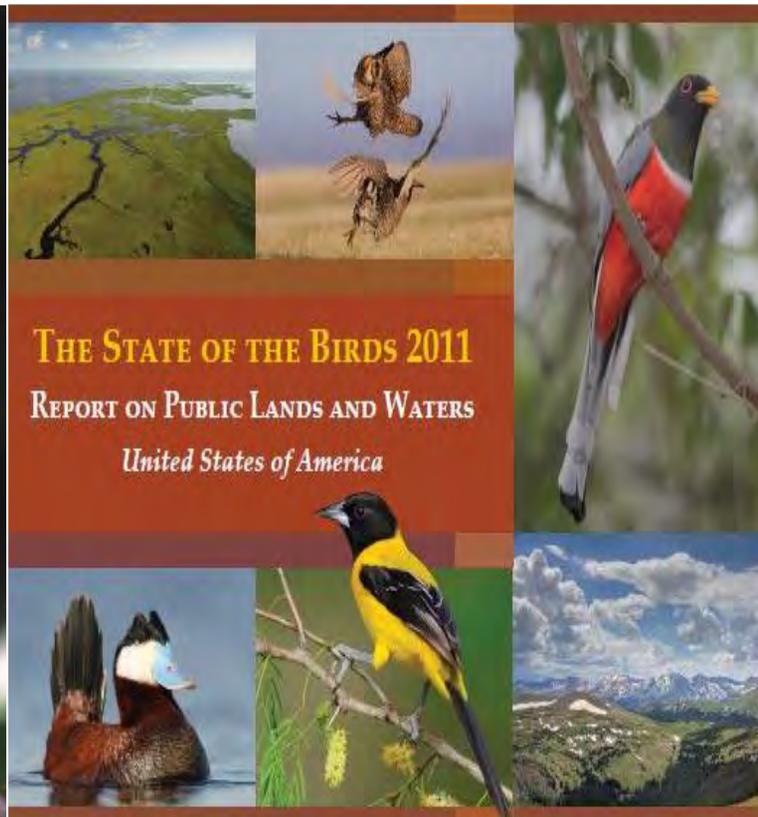
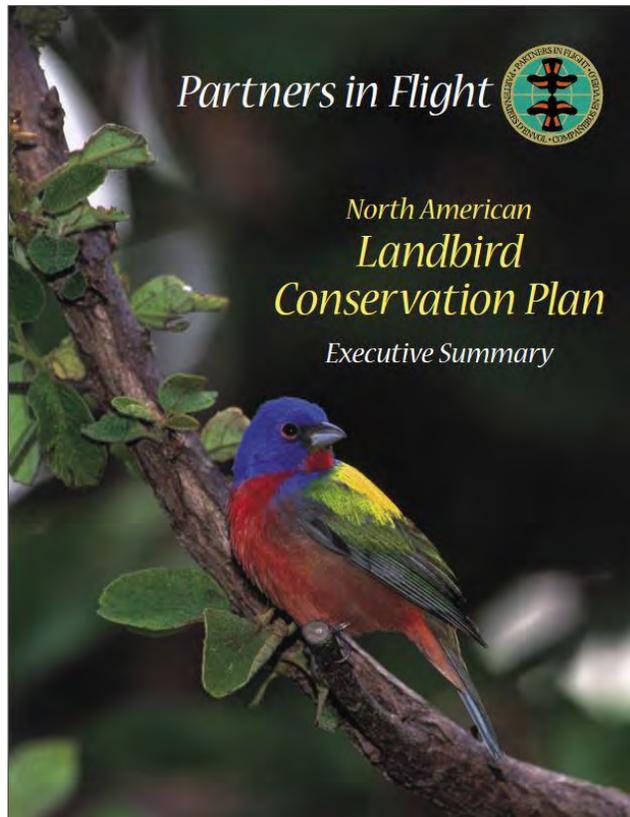


2012-2016





Cumulative Impact of Citizen Science





Dan Pancamo, Flickr Creative Commons

Your observations are critical to sustaining habitats that support Texas' native birds

Questions?



Alan Vernon, Flickr Creative Commons

Tania Homayoun
Texas Nature Trackers Biologist
Tania.Homayoun@tpwd.texas.gov

taniahomayoun

on





Resources

- *Ornithology*, Frank B. Gill, Freeman Press
- *All About Birds*, Cornell Lab of Ornithology:
<http://allaboutbirds.org>
- The video clips can be accessed at:
 - Gulf Crossing: Story of Spring - Jackson Childs:
<https://youtu.be/e20qNjdcSUk> (full movie)
 - Snake Raids Golden-cheeked Warbler Nest - Texas Parks and Wildlife [Official]: https://youtu.be/5f0IzXHid_U (full minute of video)
 - Wild crows inhabiting the city use it to their advantage - David Attenborough - BBC wildlife: <https://youtu.be/BGPGknpq3e0>