



# Artificial Lighting at Night

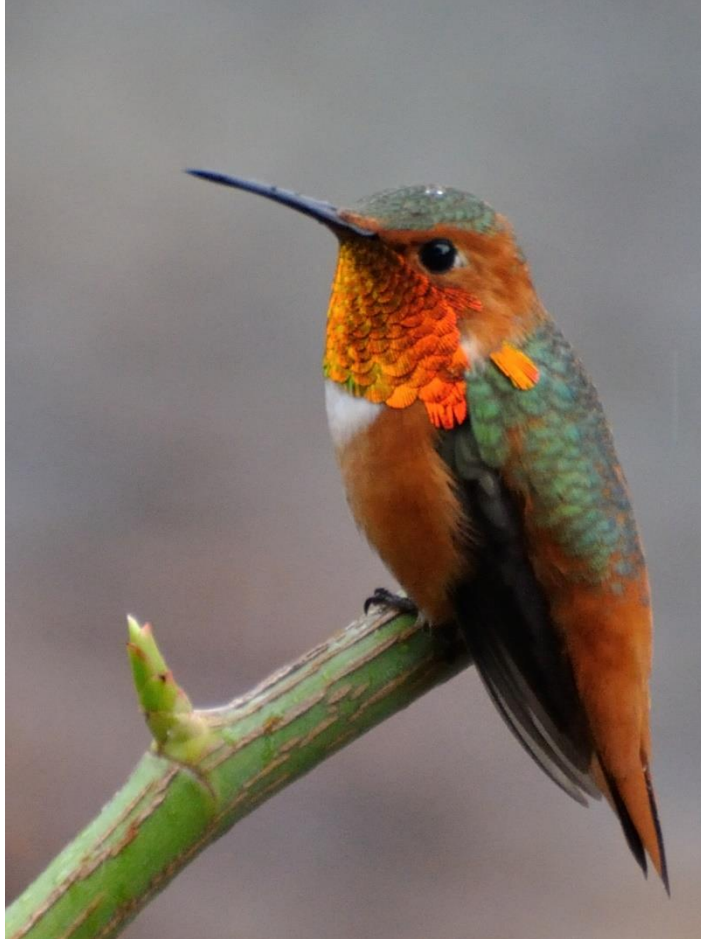
What it means for bird conservation and navigating a path forward

Jo Anna Lutmerding, Biologist



Migratory Bird Program – *Conserving America's Birds*

# U.S. Fish and Wildlife Service Migratory Bird Program



## Our Mission:

*Conserving America's Birds*

## Our Superpowers:



Small but Mighty!



Grounded in  
Science



Partnerships are  
Foundational



Customer Service Oriented



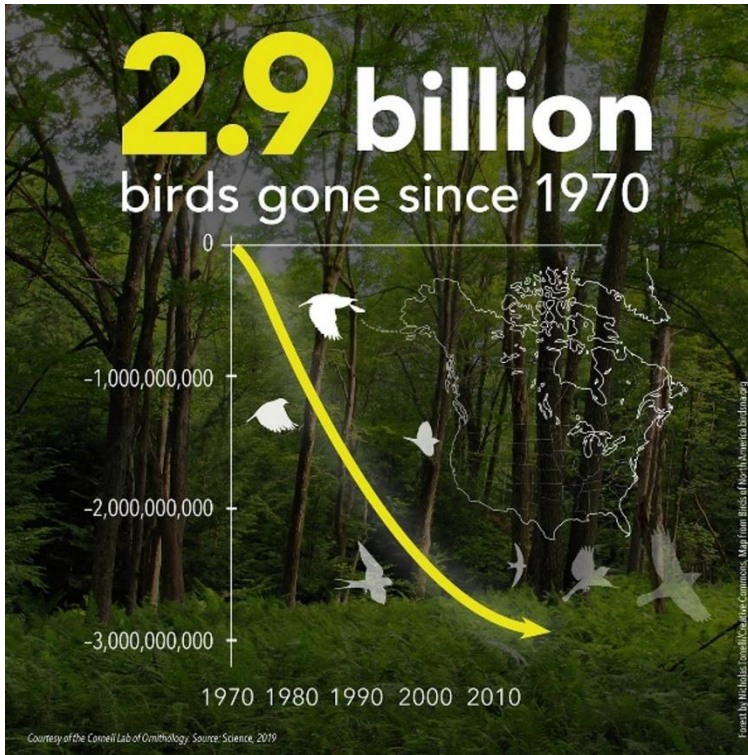
Modernization & Efficiency  
lead to better data,  
decisions





**What is your favorite memory of looking at the stars?**

# Recovering Three Billion Birds



Rosenberg et al. Science 2019





All bird species

19%

Migratory

North American  
bird species

70%

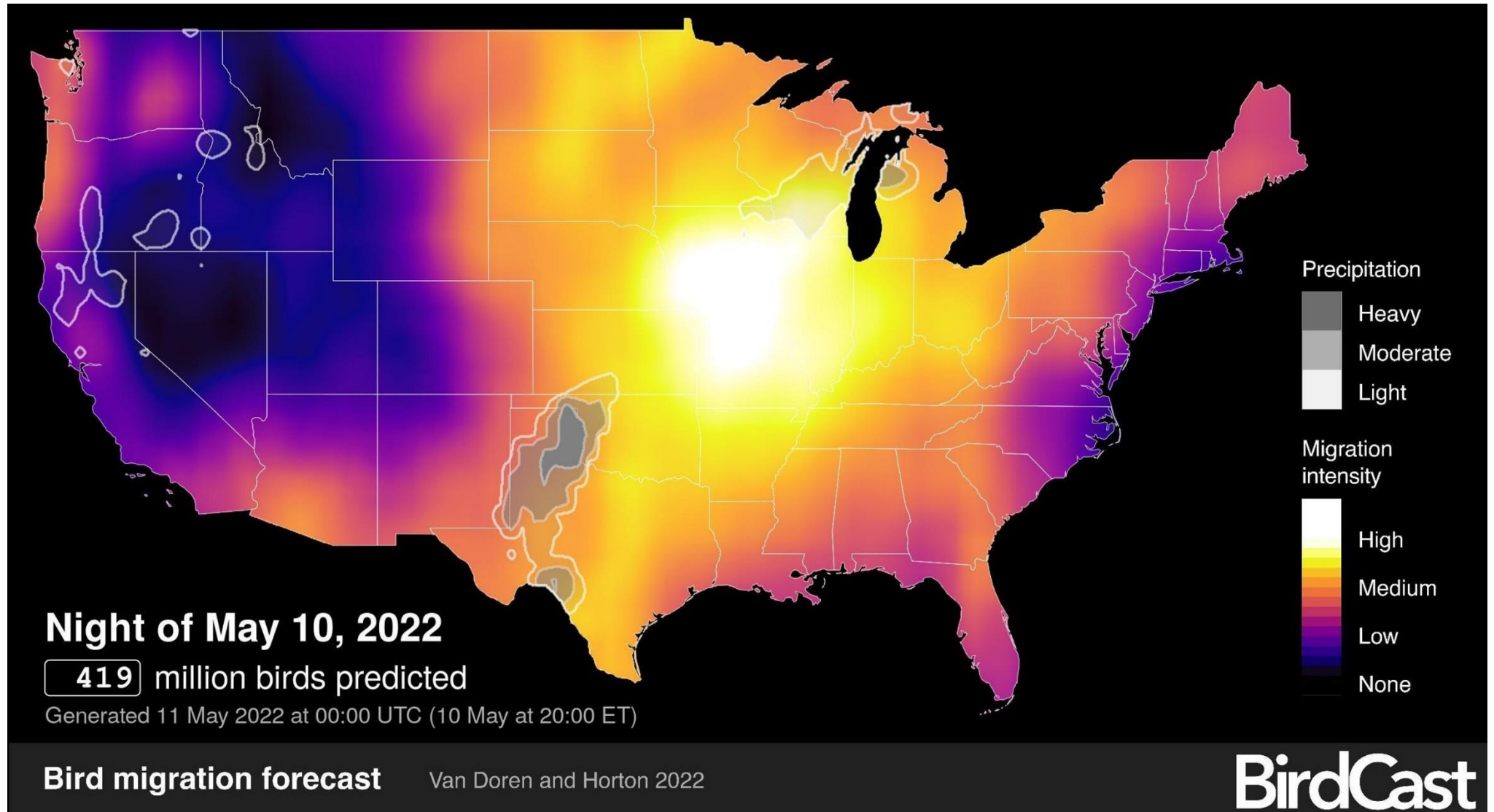
Migratory

North American  
migratory birds

80%

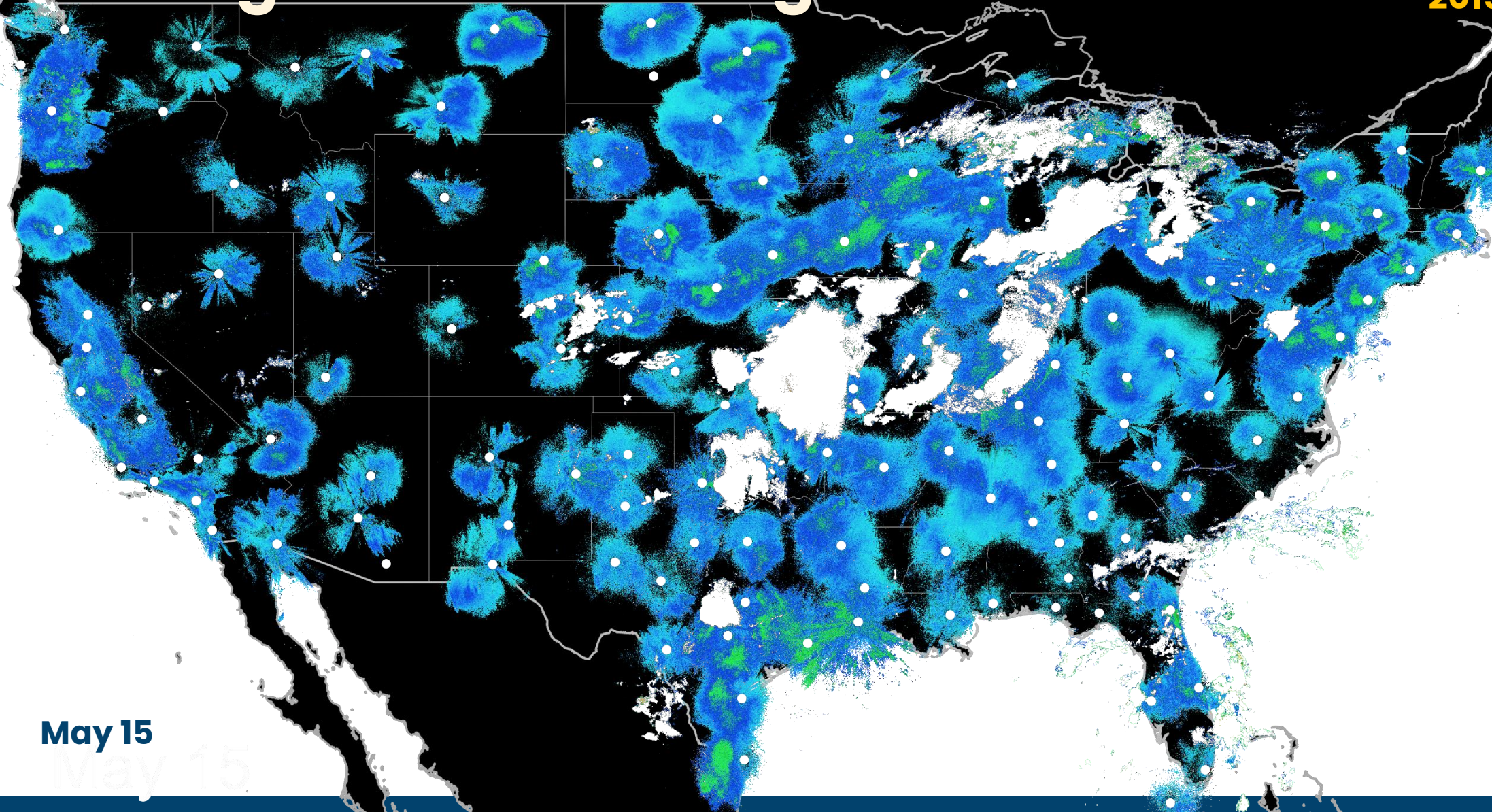
Migrate at night

# Migration Monitoring Tools and Data



# Ecological Forecasting

Horton  
2019







WWW.RLROUSE.COM

**The future is bright**

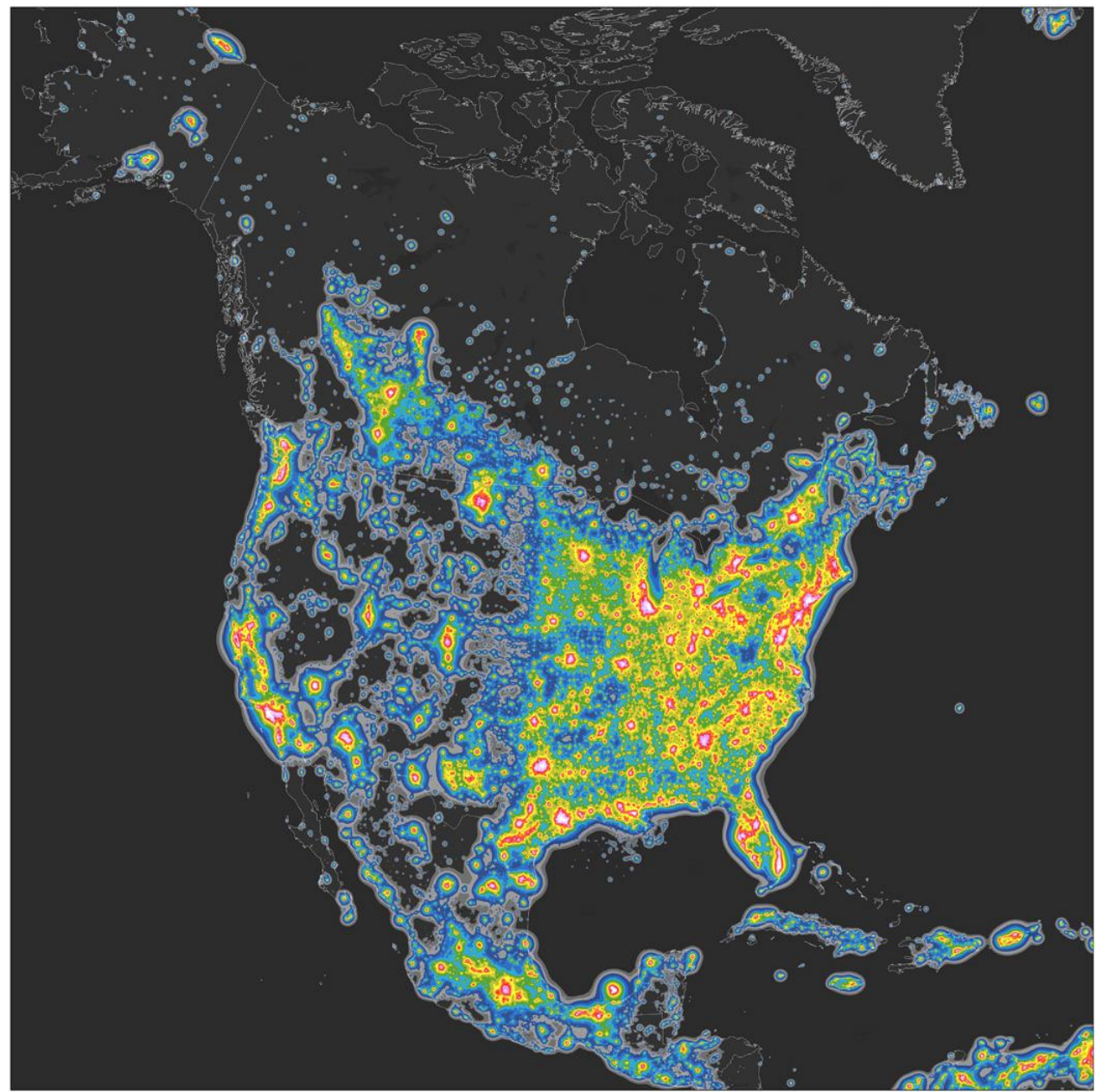


# Protected Areas

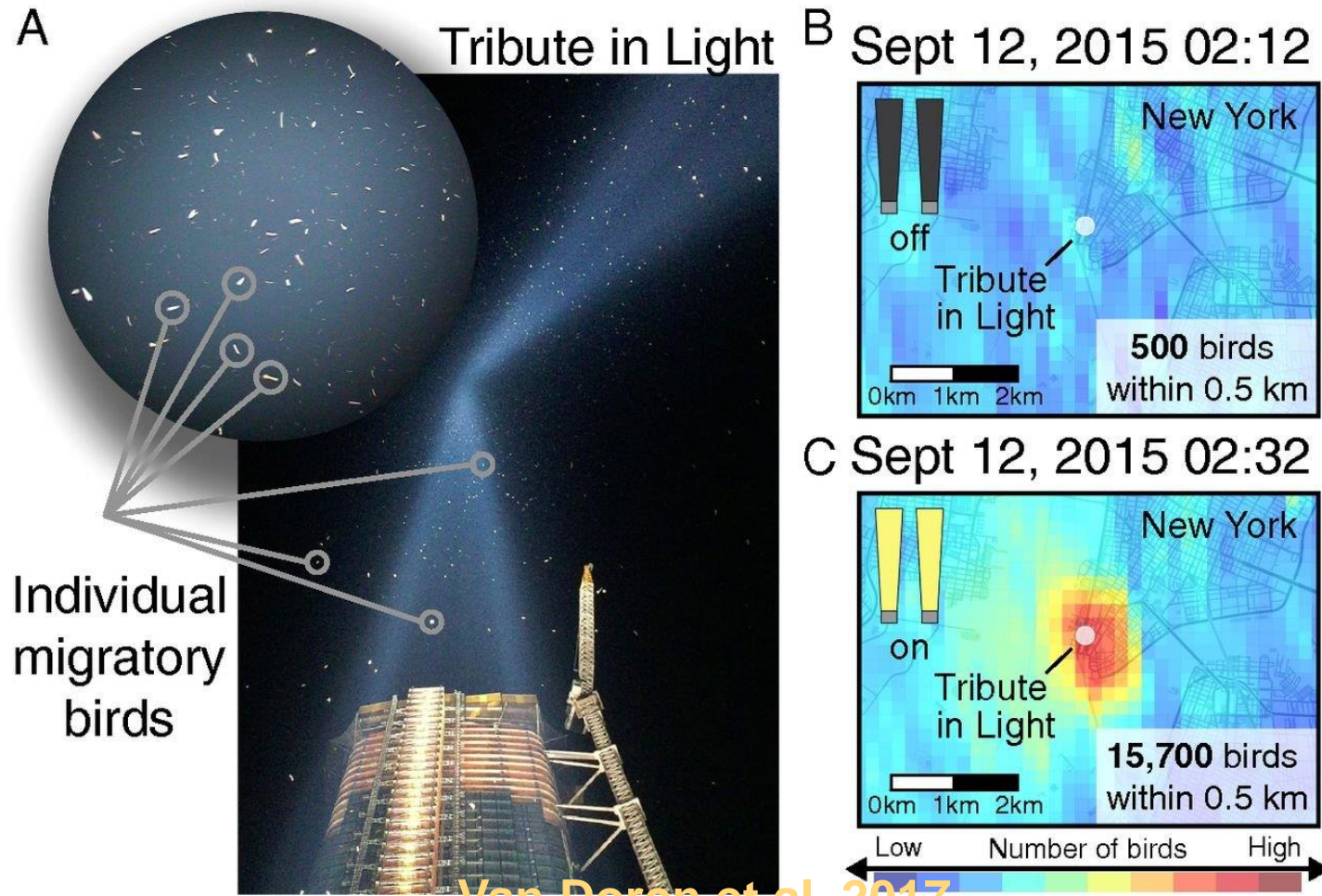
<1/3 Key Biodiversity Areas have  
pristine skies globally

Almost ½ of the U.S. has light pollution

Nearly every National Park in the U.S.  
has light pollution



# Effects of ALAN on birds



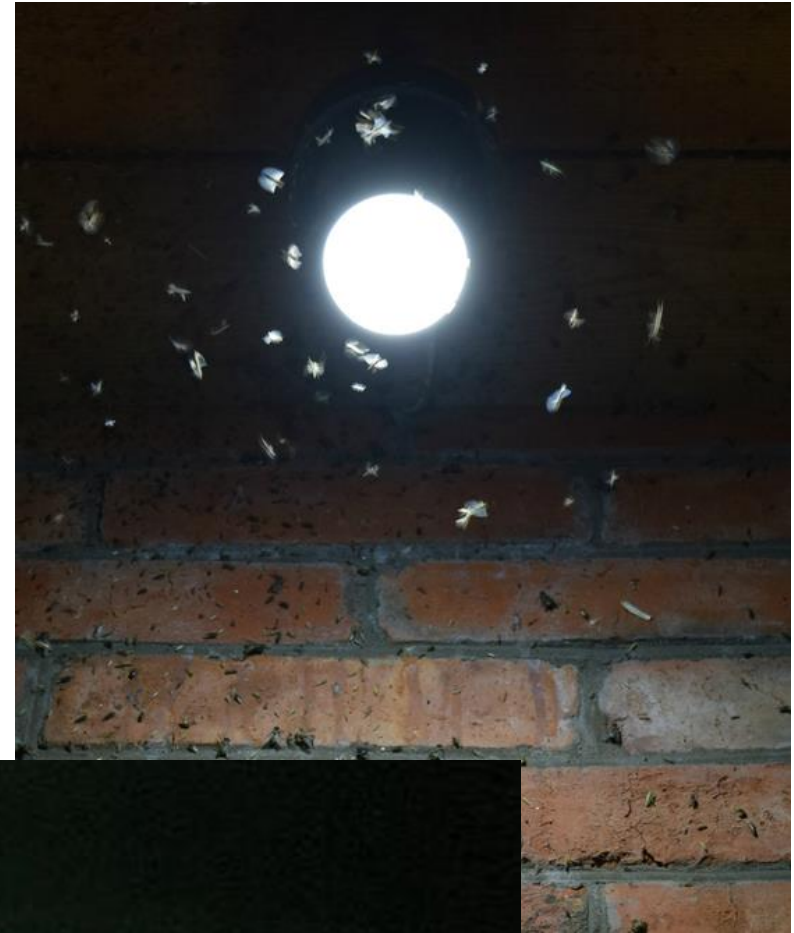
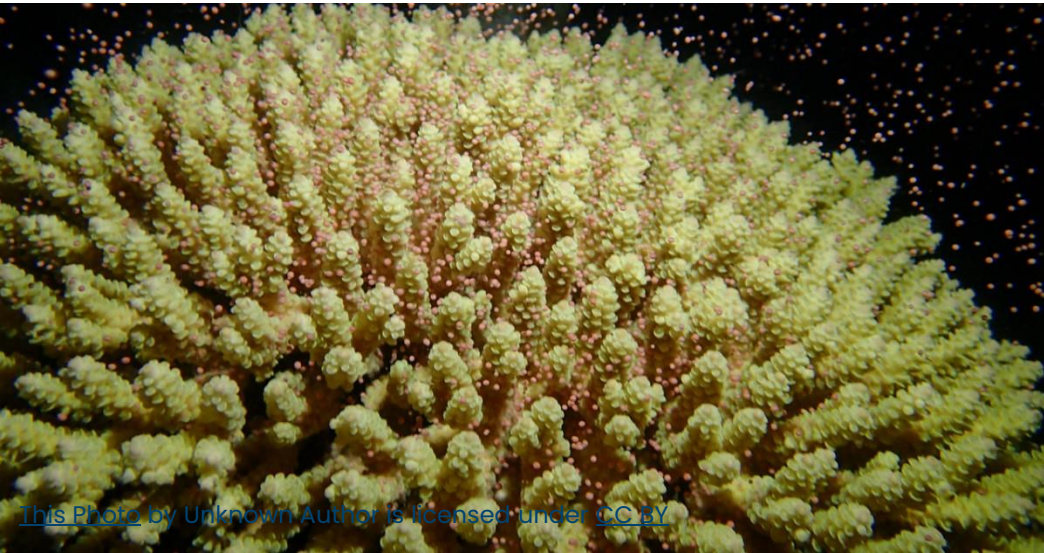
Van Doren et al. 2017

# Glass collisions kill almost 1 billion birds per year

**>99% of collisions at homes and low-rise buildings**



# Effects of lighting on other wildlife



# Effects of Nighttime Lighting on People

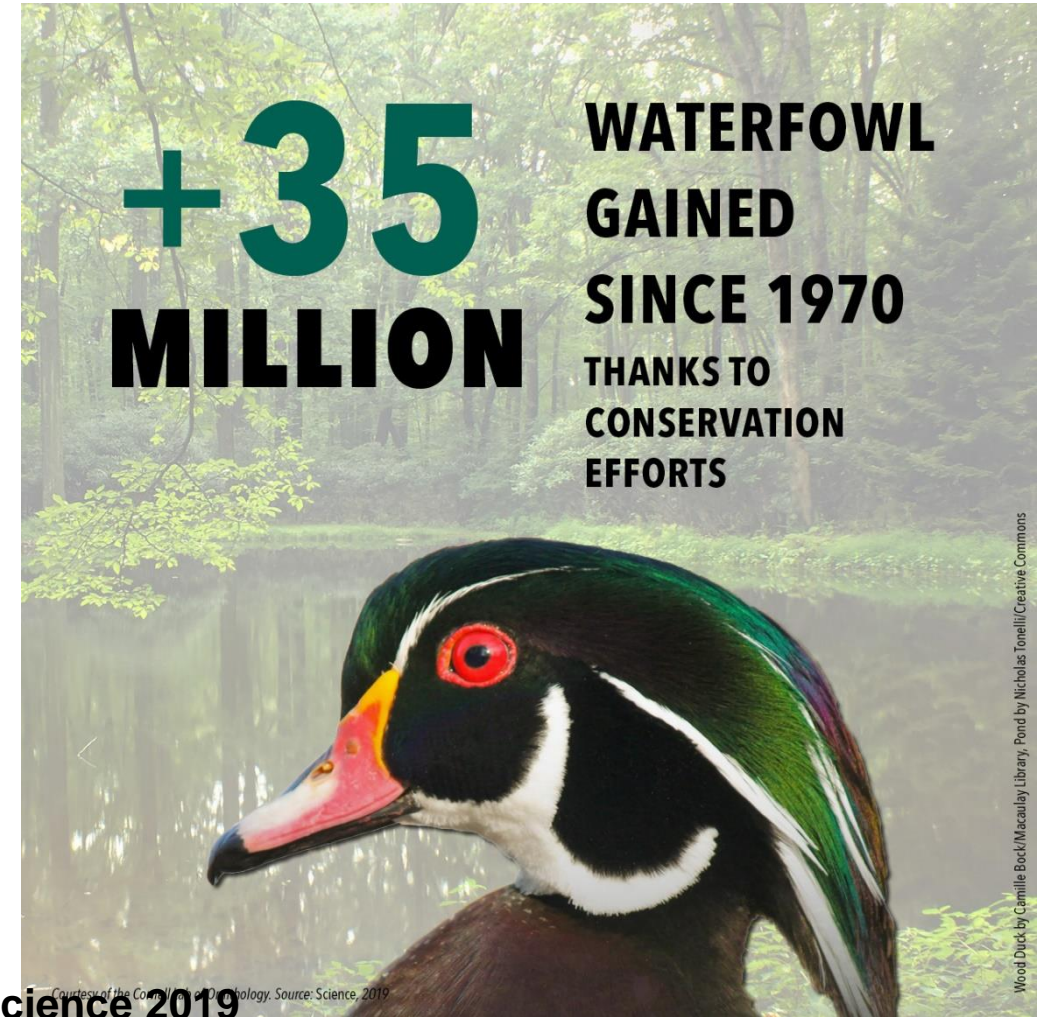
- Disrupted circadian rhythms
- Glare and reduced visibility
- False sense of security



- What aspects of this issue resonate with you?
- What is a question that comes to mind?



# Reasons for Optimism



Rosenberg et al. Science 2019





# Increasing concern and response across sectors



# World Migratory Bird Day

## Dim the Lights for Birds at Night

14 May and 8 October 2022



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



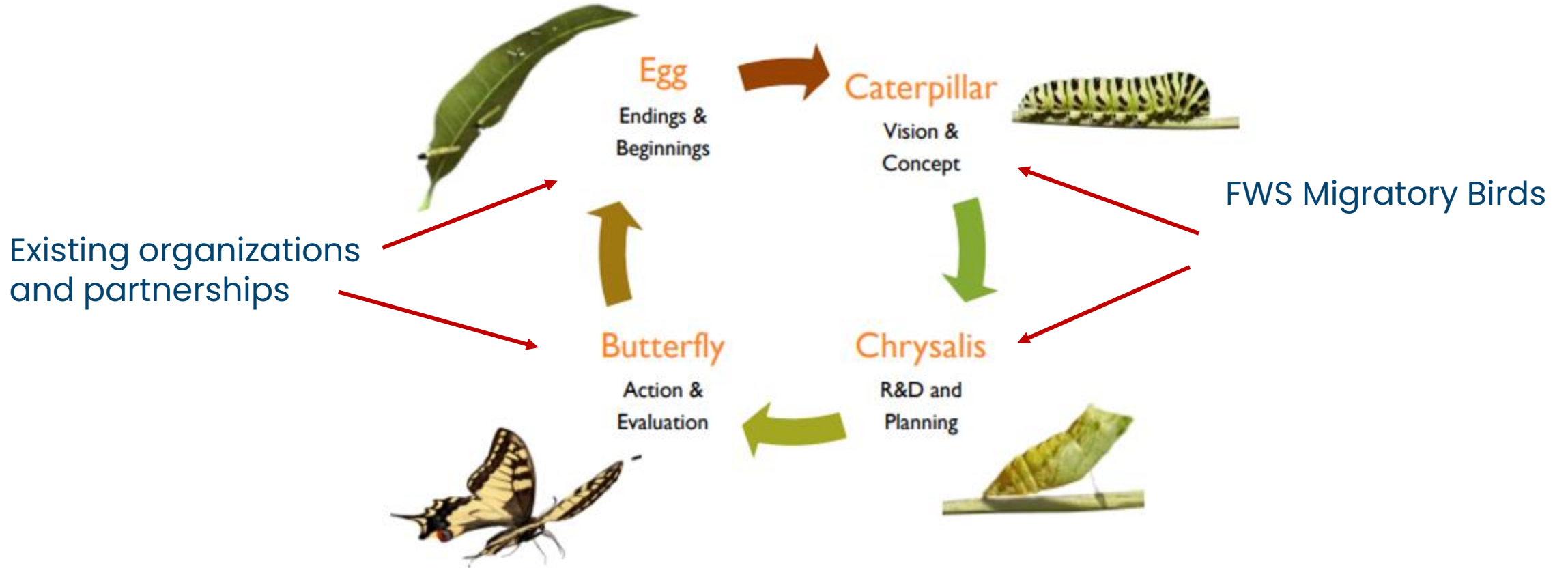
# Why this issue is great to work on!

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- A lot has been done
- It's something anyone can do
- Relatively very easy to fix
- Immediately effective
- Benefits for people and birds (and all wildlife)
- It's fascinating



# Partnership Network Life Cycle



# Why should the U.S. Fish and Wildlife Service act?

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Missions of Agency and Program

Delegated responsibilities:

Migratory Bird Treaty Act

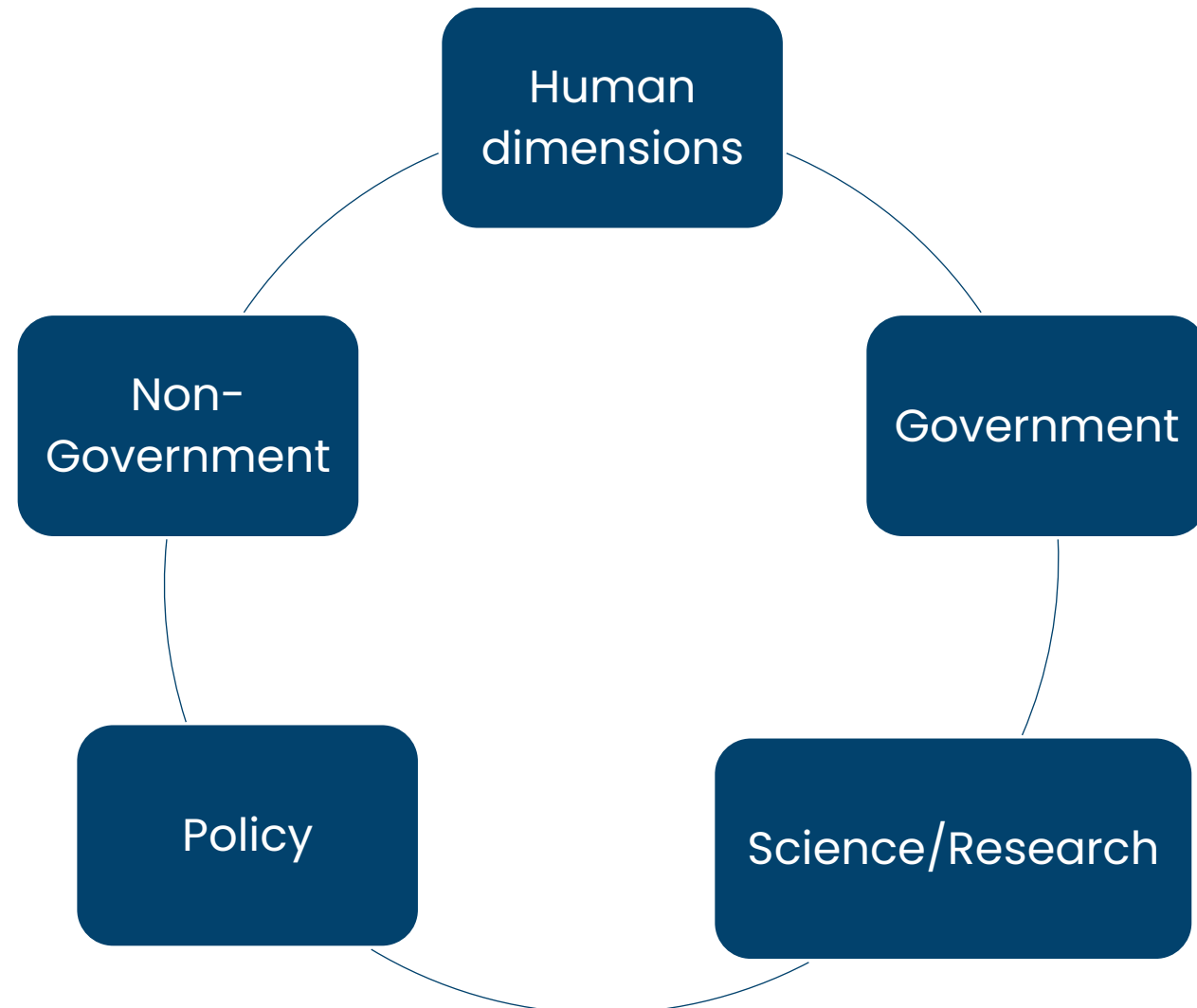
Endangered Species Act

Executive Order 13186

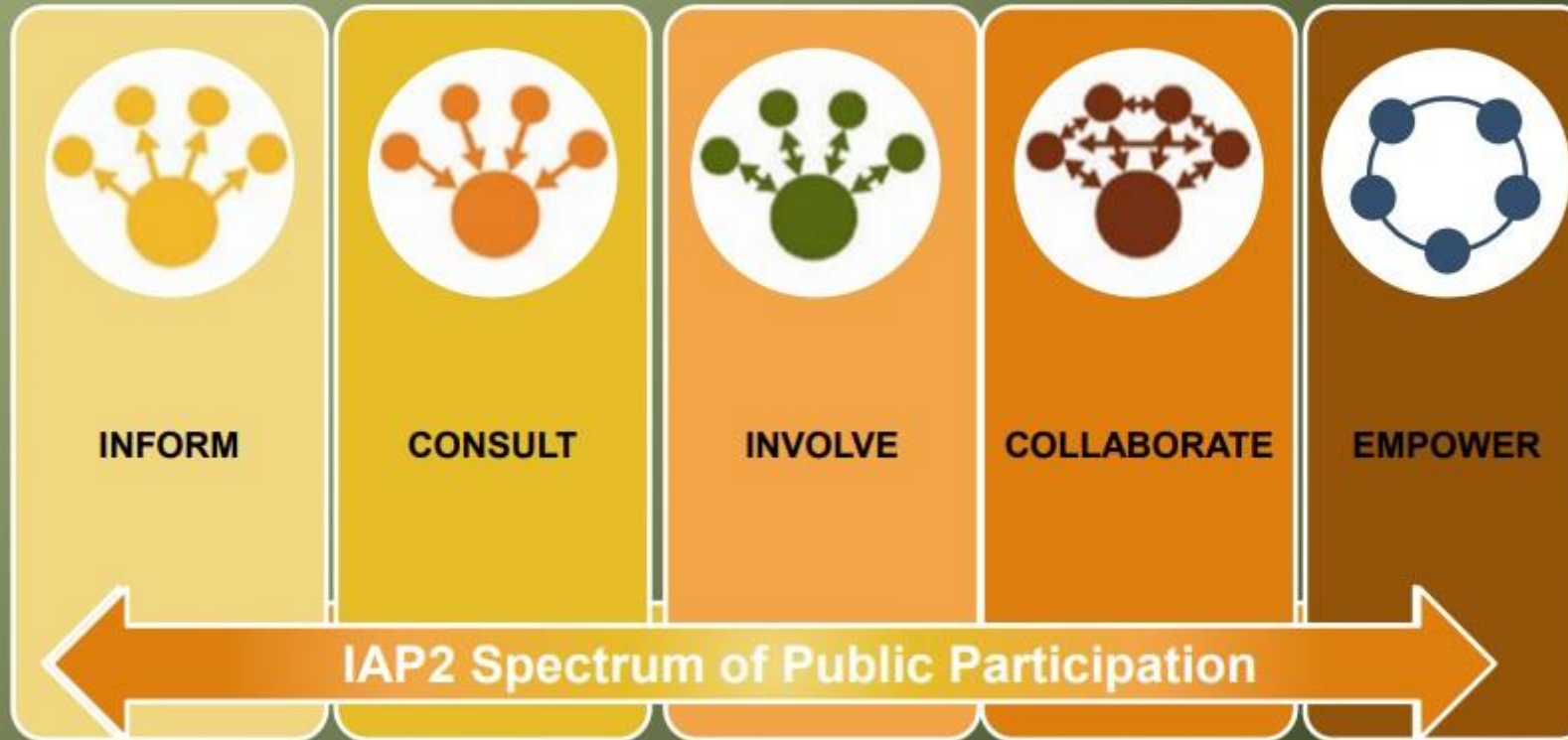


# How should the USFWS approach this?

- Small team of biologists and social scientists:
- Research(ing) the issue
- Identifying sectors, outlets, and partners
- Created action plan, prioritized, and track



# What level of participation are you seeking?



# Priority actions

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- Approaching internal and external long-standing partners
- Messaging and simple recommendations
- Developing outreach campaign
  - Survey of Lights Out groups
  - Video reels
  - Communication strategy





# Where we(I) get stuck

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- Research vs action?
- How are we value-added?
- Have we identified our niche?
- Invite ourselves to existing partnerships vs developing our own?
- Will success on this have any unintended consequences?
- What useful partners might we overlook?




# Thank you!

LOCAL NEWS

## The Gateway Arch will go dark in May, here's why

The St. Louis skyline will look a little different at night throughout the month of May.



Jane Alexander - Lights Out for Birds - You... ✕

Our thanks to actor, author and bird advocate Jane Alexander for telling people about Lights Out during this...

[www.youtube.com](http://www.youtube.com)

