

The timing of spring migration in Ohio



Hooded Mergansers. Photo by Andy Reago & Chrissy McClarren (CC 2.0)



Tree Swallow. Photo by Matthew Shumar



Nashville Warbler. Photo by Andy Reago & Chrissy McClarren (CC 2.0)



Yellow-billed Cuckoo. Photo by Andy Reago & Chrissy McClarren (CC 2.0)



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

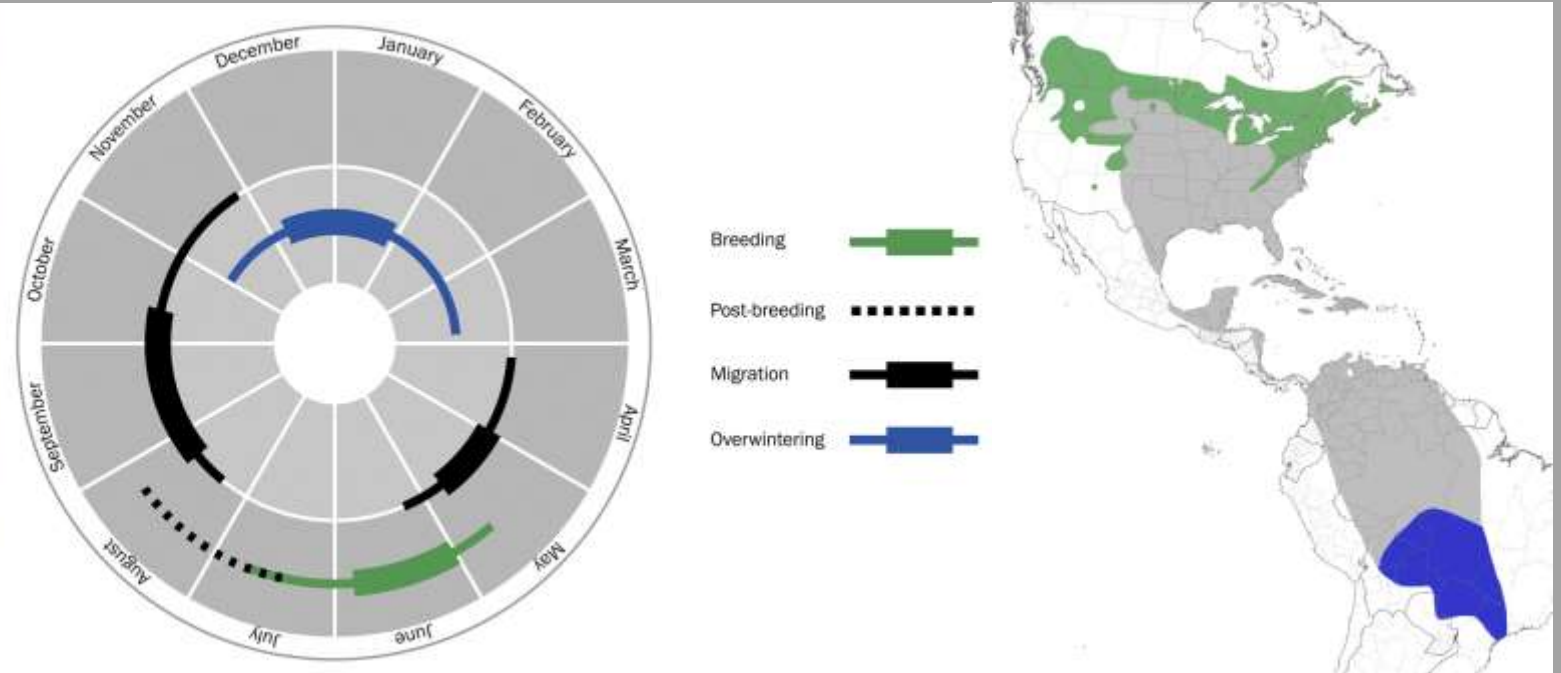
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Stephen Matthews
Associate Professor

Life cycle of birds



Veery. Photo by Andrew Weitzel



Life cycle of birds



Magnolia Warbler. Photo by Andy Reago & Chrissy McClarren (CC 2.0)



Why migrate?



- Abundant resources at northern latitudes
- Larger area to disperse
- Longer daylight



- Maximize reproductive success

Where did they go?

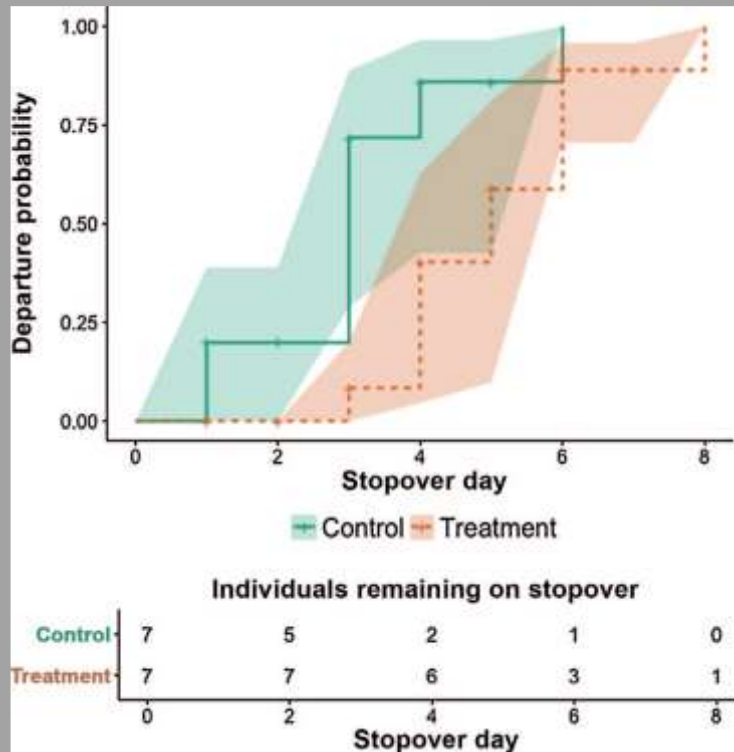
Eastern Whip-poor-will study conducted at Vinton Furnace

Archival GPS tags deployed and then birds recaptured the following spring (Tonra et al. 2019)

Quantify winter home ranges (1 to 10 ha) found
importance of forests and edges on the wintering grounds

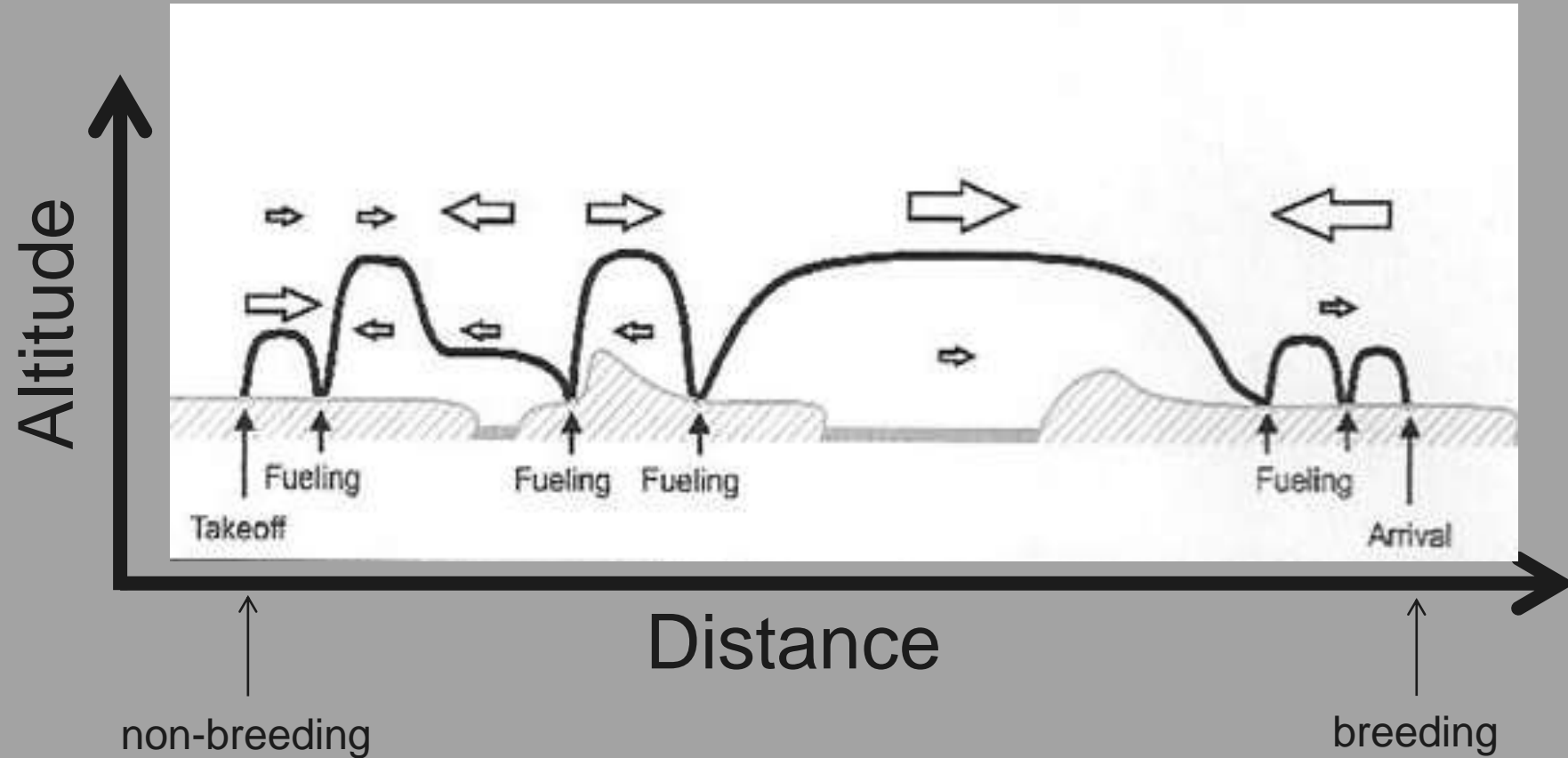


How they migrate? Stopover habitat



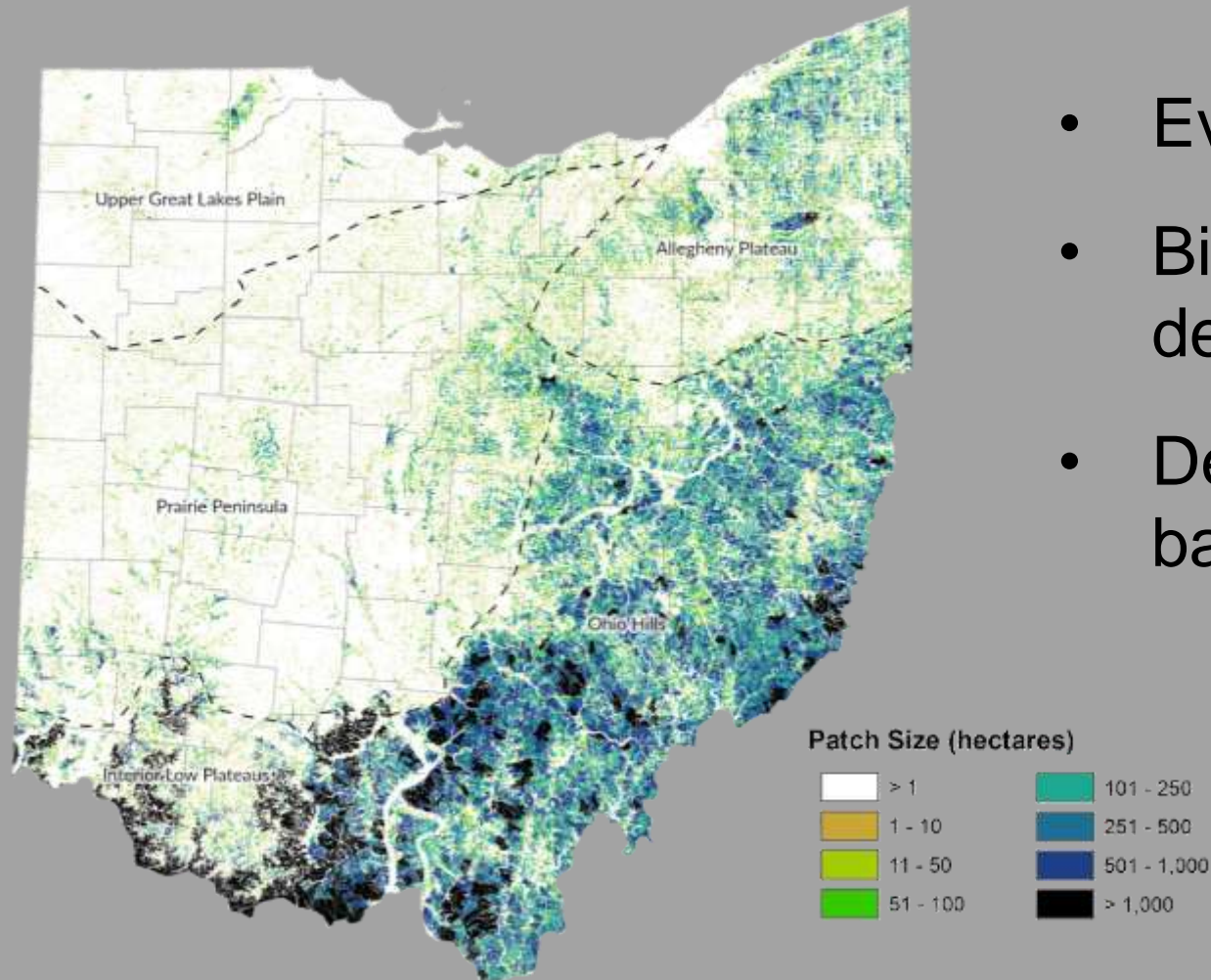
- Provide food resources and cover
- Spend 7-times longer at stopover sites than in migratory flight
- Replenishing energy at each stop important to migratory schedule
- American Restarts delay departure when in poorer condition (*Dossman et al. 2018*)

The importance of stopover habitat



* Akesson and Hendenstrom, 2007

The importance of stopover habitat

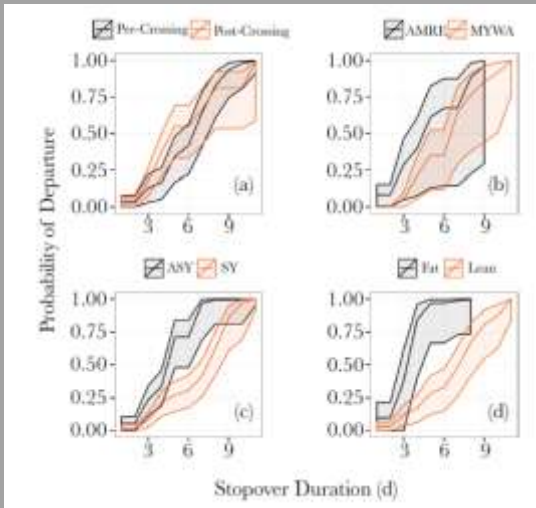


- Every forest patch helps
- Birds must make stopover decisions after each flight
- Decisions on staying or leaving based on timing and energy

Stopover habitat



- Swainson's Thrush: Day of year was primary driver reflecting pressure to move on even in urban stopover locations



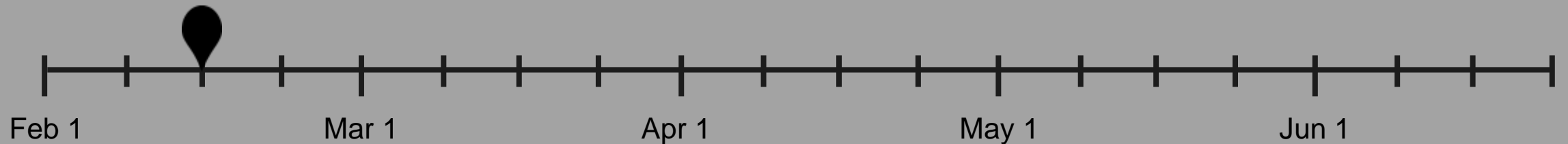
- Myrtle Warbler and American Restarts along Lake Erie show importance of refueling at critical site

Mid-February

- blackbirds
- American Woodcock
- waterfowl (*beginning*)



Red-winged Blackbird. Photo by Andy Reago & Chrissy McClarren (CC 2.0)



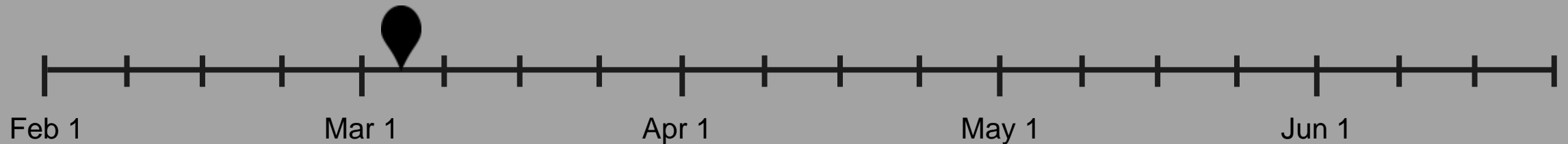
Early March

(My yard, 2021, Vinton County)

- waterfowl
- Yellow-bellied Sapsucker* *February 12, 2021*
- Tree Swallow
- Eastern Phoebe* *February 13, 2021: VS*



Eastern Phoebe. Photo by Andy Reago & Chrissy McClarren (CC 2.0)

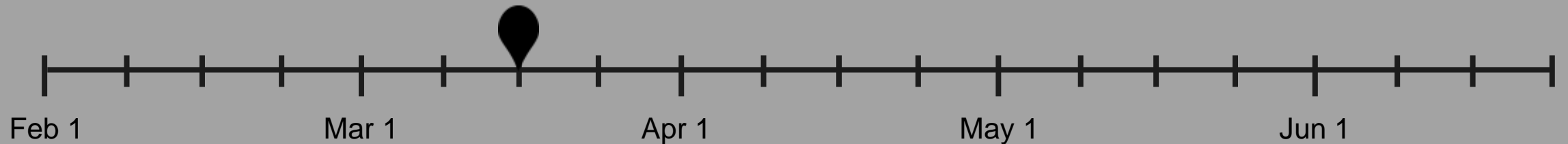


Mid-March

- waterfowl (*peak*)
- raptors (*beginning*)
- American Woodcock (*territorial*)
March 3, 2021: C
- Swallows/martins (*late March*)



American Woodcock. Photo by Andy Reago & Chrissy McClarren (CC 2.0)

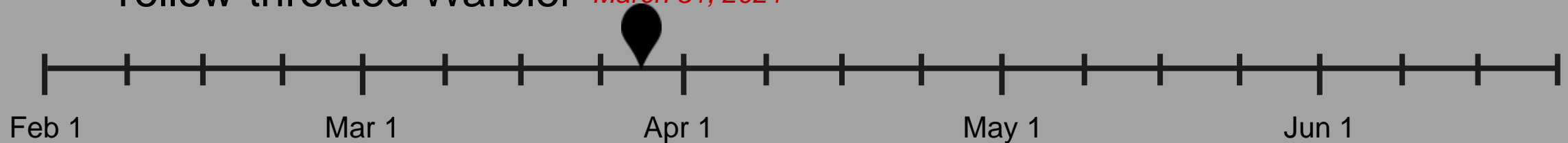


Late March to early April

- waterfowl (*still strong*)
- raptors (*peak, slowing*)
- Shorebirds (*beginning*)
- Yellow-bellied Sapsucker *February 12, 2021*
- kinglets *RCKI: March 31, 2021*
- Winter Wren
- Louisiana Waterthrush *March 23, 2021*
- Yellow-throated Warbler *March 31, 2021*



American Golden-Plover. Photo by Andy Reago & Chrissy McClarren (CC 2.0)

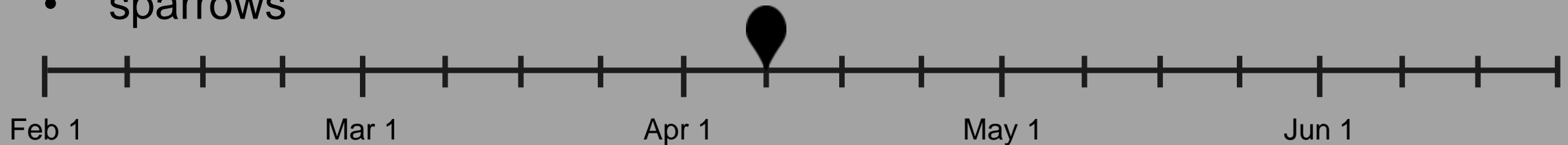


Early to mid-April

- waders
- shorebirds continue
- Eastern Whip-poor-will
- warblers really start arriving!
 - Black-and-white Warbler
 - Palm Warbler
 - Nashville Warbler
- Blue-gray Gnatcatcher *April 4, 2021*
- sparrows



Great Egret. Photo by Andy Reago & Chrissy McClarren (CC 2.0)

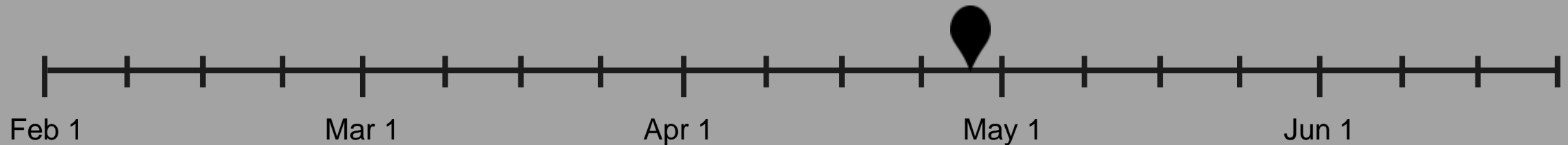


Late April through the first week of May

- vireos
- Ruby-throated Hummingbird
- House Wren
- thrushes
- warblers!!!
- orioles



Blackburnian Warbler. Photo by Andy Reago & Chrissy McClarren (CC 2.0)

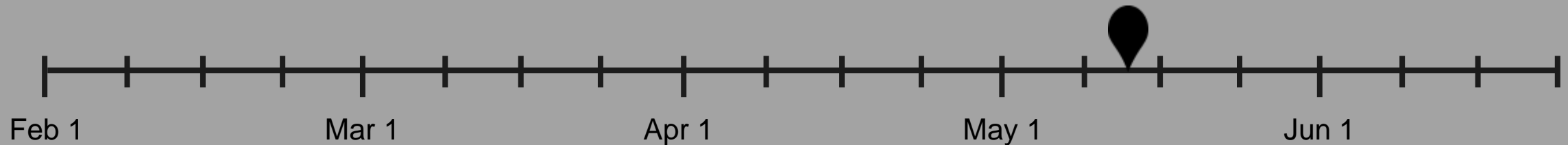


Mid-May

- shorebirds (*still!!*)
- flycatchers
- Swainson's Thrush
- Blackpoll Warbler
- Rose-breasted Grosbeak



Willow Flycatcher. Photo by Matthew Shumar

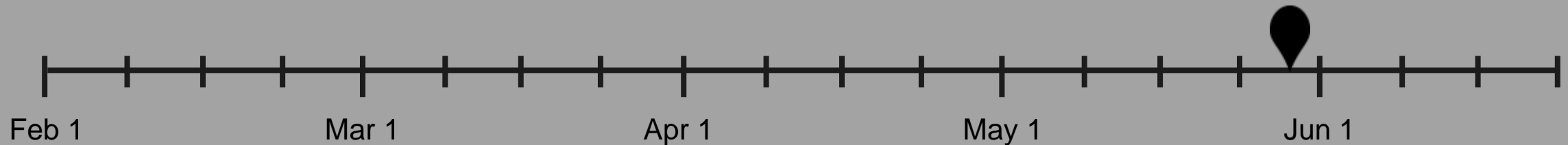


Late May into June

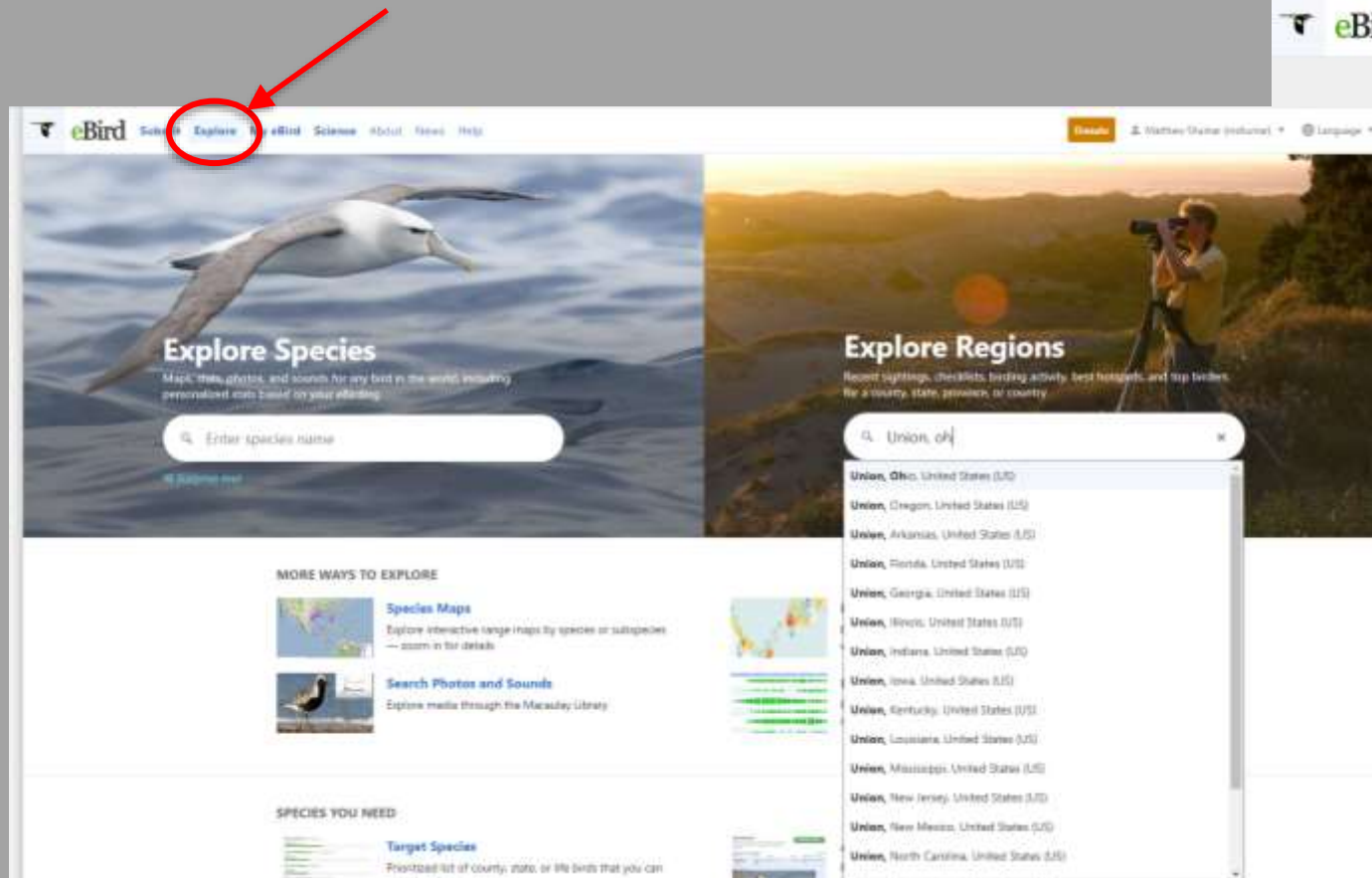
- cuckoos
- Gray-cheeked Thrush
- Scarlet Tanager
- Lincoln's Sparrow
- Indigo Bunting



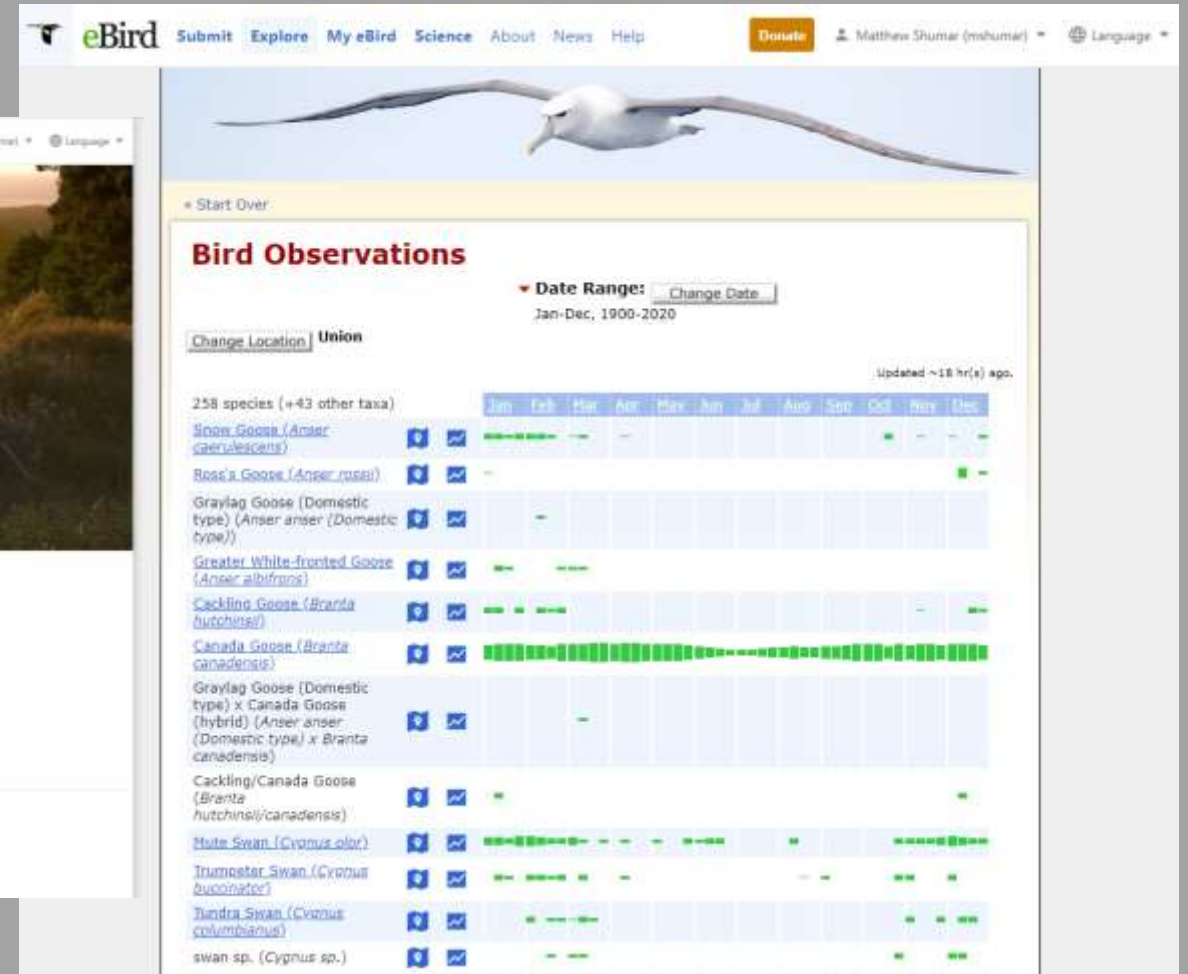
Indigo Bunting. Photo by Andy Reago & Chrissy McClarren (CC 2.0)



Explore further on eBird!



The screenshot shows the eBird homepage. The top navigation bar includes links for Search, **Explore** (circled in red with a red arrow pointing to it), My eBird, Science, About, News, and Help. Below the navigation bar, there are two main sections: "Explore Species" and "Explore Regions". The "Explore Species" section features a search bar with the placeholder text "Enter species name". The "Explore Regions" section has a search bar with the text "Union, OH" and a dropdown menu showing a list of regions in the United States, including Union, Ohio, United States (US); Union, Oregon, United States (US); Union, Arkansas, United States (US); Union, Florida, United States (US); Union, Georgia, United States (US); Union, Illinois, United States (US); Union, Indiana, United States (US); Union, Iowa, United States (US); Union, Kentucky, United States (US); Union, Louisiana, United States (US); Union, Mississippi, United States (US); Union, New Jersey, United States (US); Union, New Mexico, United States (US); and Union, North Carolina, United States (US). Below these sections, there are "MORE WAYS TO EXPLORE" and "SPECIES YOU NEED" sections.



The screenshot shows the eBird "Bird Observations" page for the Union, OH region. The page features a header with the eBird logo and navigation links. Below the header, there is a "Start Over" button and a "Bird Observations" section. The "Bird Observations" section includes a "Date Range" dropdown set to "Jan-Dec, 1900-2020" and a "Change Location" button. The main content area displays a list of 258 species (+43 other taxa) with their respective observation counts and a bar chart showing the distribution of observations across the months of the year. The species listed include Snow Goose (Anser caerulescens), Ross's Goose (Anser rossii), Graylag Goose (Domestic type) (Anser anser (Domestic type)), Greater White-fronted Goose (Anser albifrons), Cackling Goose (Branta hutchinsii), Canada Goose (Branta canadensis), Graylag Goose (Domestic type) x Canada Goose (hybrid) (Anser anser (Domestic type) x Branta canadensis), Cackling/Canada Goose (Branta hutchinsii/canadensis), Mute Swan (Cygnus olor), Trumpeter Swan (Cygnus buccinator), Tundra Swan (Cygnus columbianus), and swan sp. (Cygnus sp.).

