

# Shared Species of Rocky Mountain National Park, CO and Monteverde, Costa Rica

## Connecting the Dots for Species Conservation

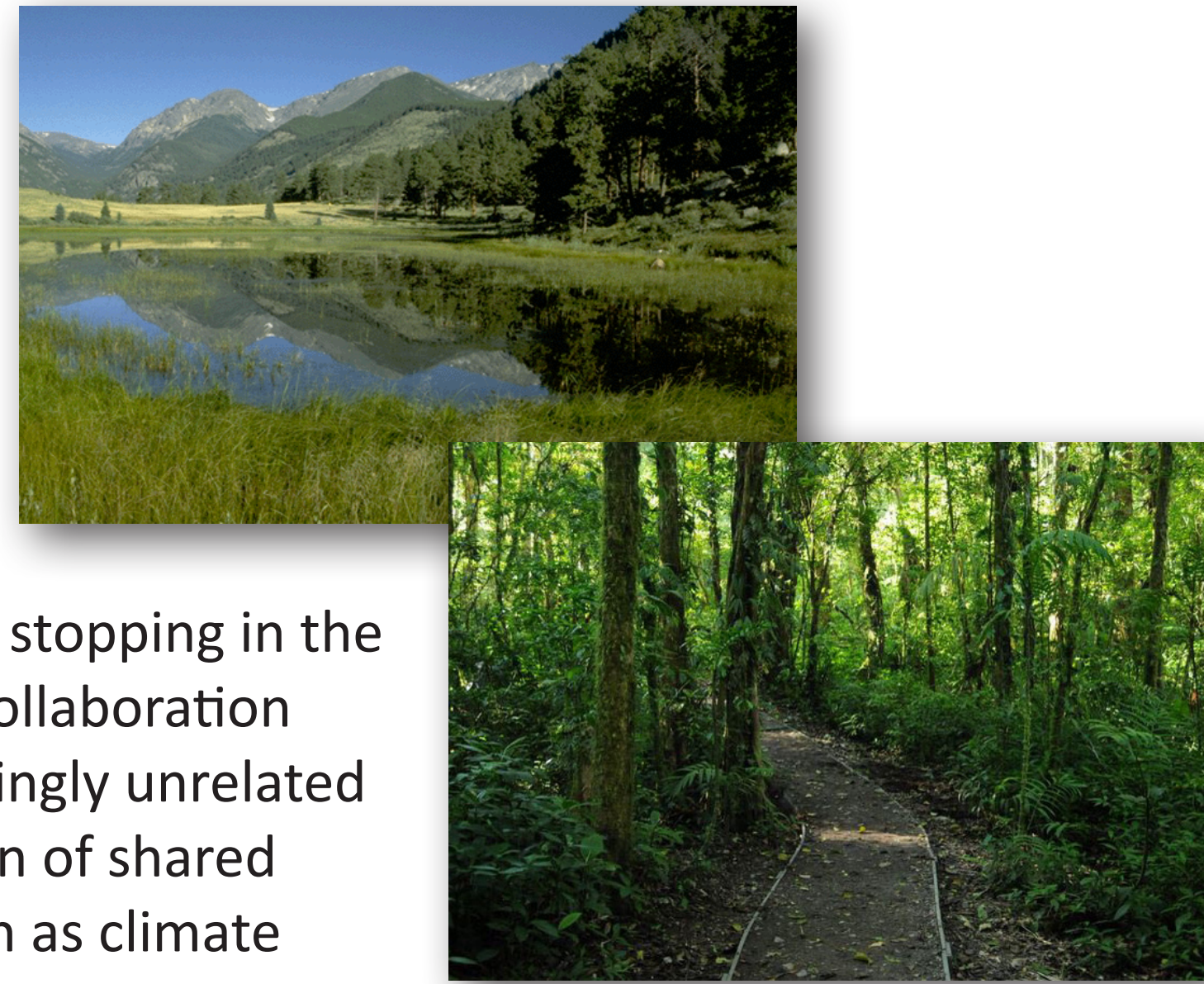


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### Introduction

Sister Cities Estes Park, CO, and Monteverde, Costa Rica are gateways to the protected areas of Rocky Mountain National Park and the Monteverde Rainforest Reserves. These areas provide important habitat for a variety of plant and animal species, including migratory birds. Many of the bird species that breed in Rocky Mountain National Park migrate south during the winter, with some species spending time or stopping in the Monteverde area of Costa Rica. Management collaboration across the boundaries of these and other seemingly unrelated protected areas is important to the conservation of shared species, especially as pressure from factors such as climate change increase.



### Rocky Mountain National Park, CO & Monteverde, Costa Rica

- Sister Cities: In 2010, leadership developed three priorities for relationship development, including species conservation.
- Ecotourism is important in both areas.
- Both are protected areas encompassed by internationally significant Important Bird Areas (IBAs).
- Both are located along the continental divide, separated by more than 2100 miles (3380 km).
- Mountain Ranges: Rocky Mountains, 7,840–14,259 ft (2,390–4,346 m) and Cordillera de Tilarán, 1,970–6,043 ft (600–1,842 m)
- Differences in climate due primarily to differences in latitude (Rocky Mountain: temperate, Monteverde: tropical).



### An important issue

- Birds without boundaries
  - Migration routes cross many states and countries
  - Migratory birds use a variety of habitats in numerous locations throughout their yearly cycle.
- It takes more than one protected area to protect a species.
- Collaboration across boundaries is important for species conservation.

#### Objectives of this Project:

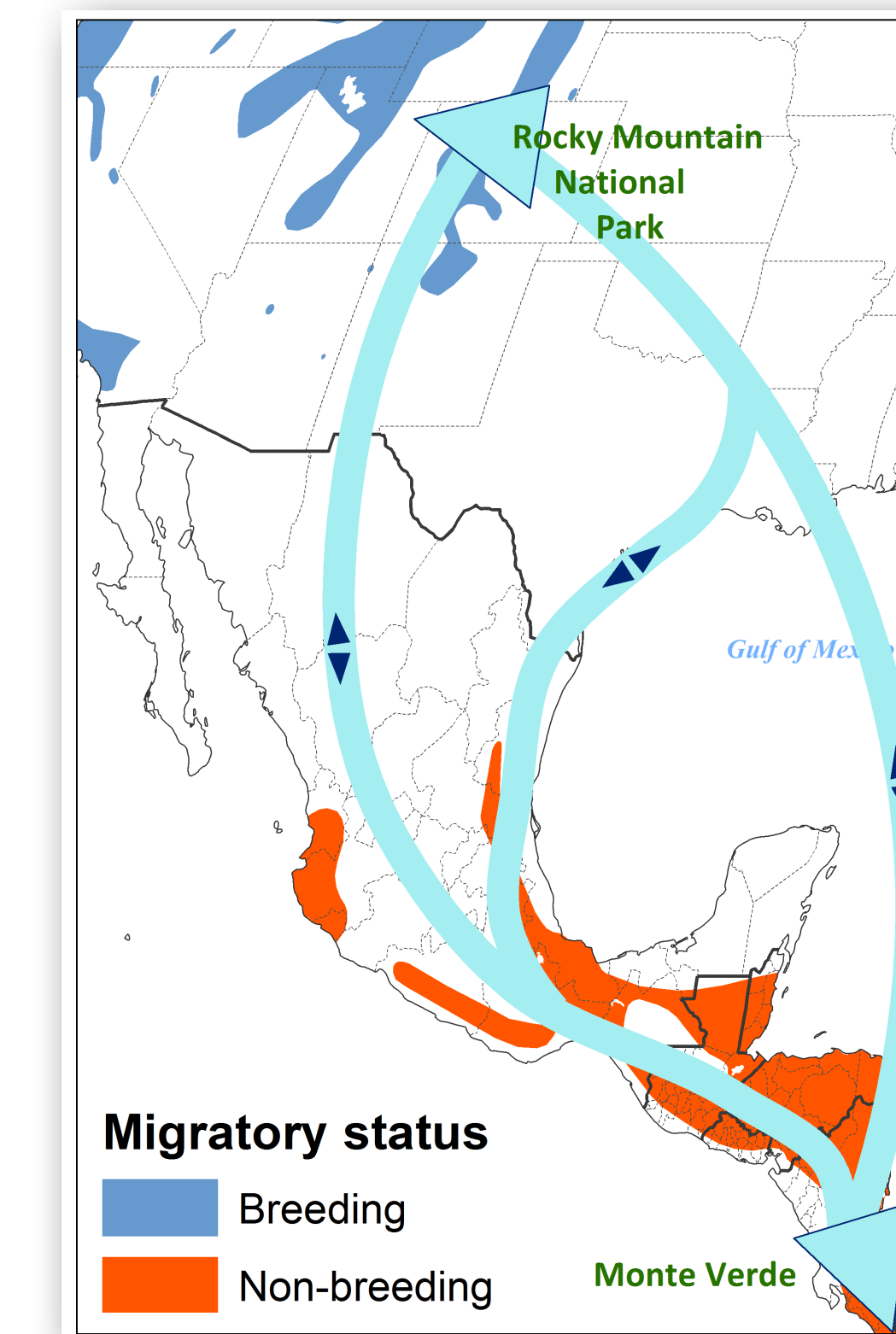
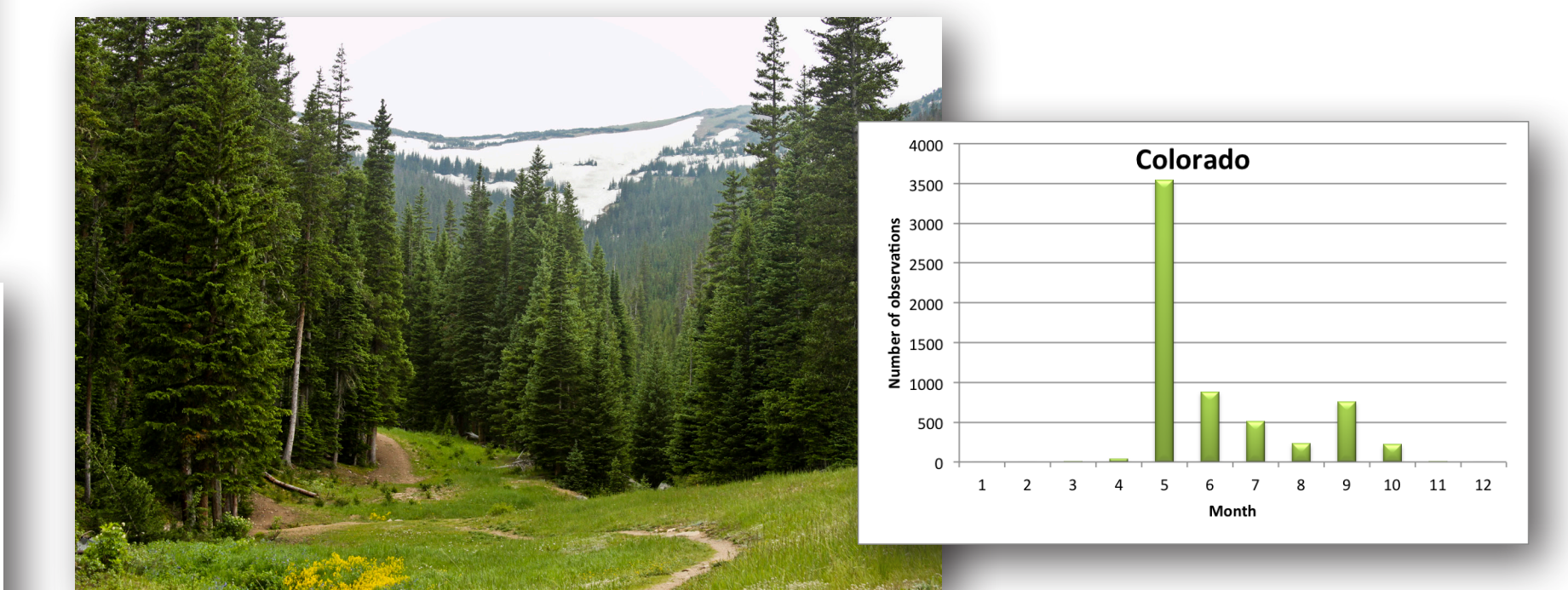
- To encourage positive relationships between gateway communities
  - For example, participation with Sister Cities organization of Estes Park
- To enhance shared-species conservation through global partnerships
  - Research, education, technical assistance, public relationships



### Example: Swainson's Thrush

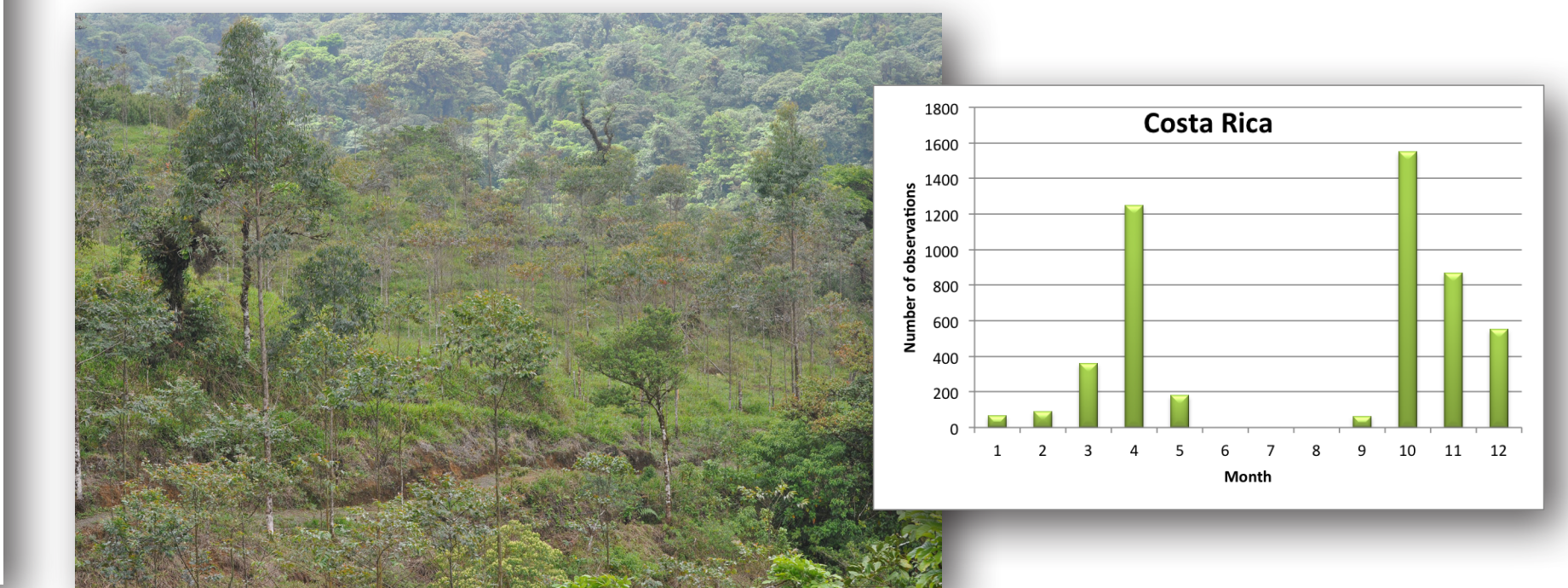


In Colorado, common in spruce-fir forests and mountain riparian thickets from 7,000–11,000 ft (2,134–3,363 m). Common in Colorado during spring migration and some remain to breed.



In Costa Rica, commonly found among herbaceous shrubs and small fruiting plants in secondary forest.

Common in Costa Rica during spring and fall migration, and some remain throughout the winter months.



### Conservation Implications and Potential Impacts of Climate Change

- Swainson's thrush is declining throughout its range, including Colorado
  - Potential reasons: loss of habitat (brooding and migration) due to development and grazing, high predation rates, low nest-success rates, and brown-headed cowbird parasitism.
- Decline in willow habitat in Rocky Mt. NP due to willow dieback and ungulate browsing
  - Park's 2007 Elk and Vegetation Management Plan is reversing this trend
- Rocky Mt. NP is near the southern limit of the breeding range for Swainson's thrush, and climate change could push it even further north. However, if adequate habitat is available at higher elevations in the park, these could provide some respite for this species.

### Connecting the Dots

The Swainson's thrush example, and the other species evaluated as part of this project illustrate the connectedness of protected areas, even those that are far apart, including:

- Complexity of migration patterns
- Likely sensitivity to climate change
- A compelling need for collaboration to promote species conservation

We need to learn more about migratory routes, habitats, and seasons of use for these species to improved shared-species conservation.

**We can't leave the protection of these species to chance!**

### For More Information

If you are interested in learning more about this project, contact Ben Bobowski at 970-586-1350 or [ben\\_bobowski@nps.gov](mailto:ben_bobowski@nps.gov).

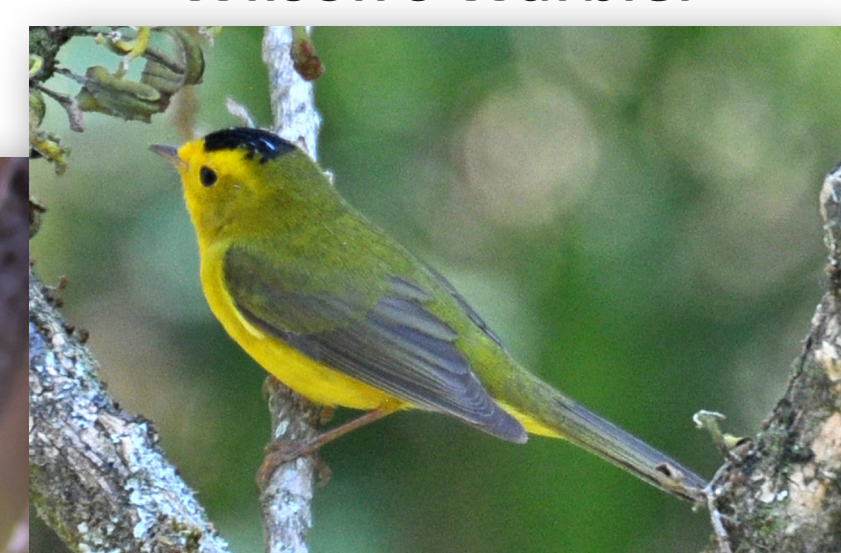
### Shared Migratory Bird Species

- Rocky Mountain NP shares more than 150 species of birds with Costa Rica.
- Of those 150+ species, Rocky Mountain NP shares 55 species with the Monteverde area.
- This project focuses on four species identified in both locations.

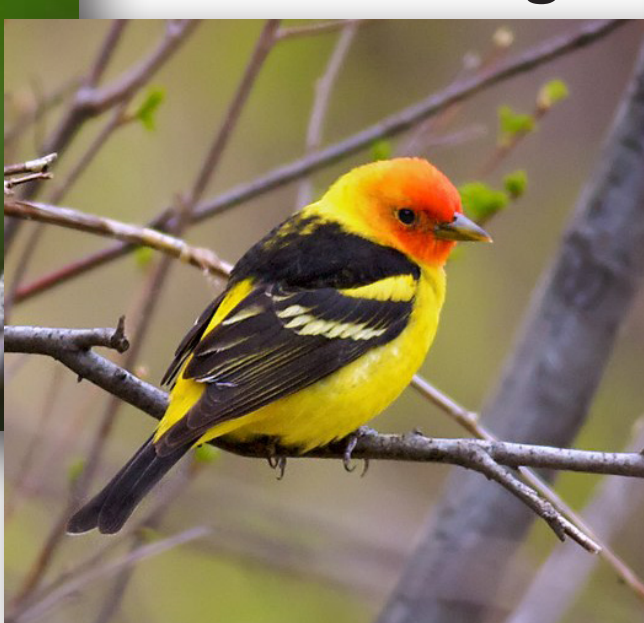
Swainson's Thrush



Wilson's Warbler



Western Tanager



Yellow Warbler



### Migration Routes

Neotropical migrants traveling south from North America tend to bottleneck over southern Mexico and Central America. As a result, species diversity in these areas is high and habitat conservation is essential.