

NEOTROPICAL FLYWAYS PROJECT

2022-2023 Season

Bay-Breasted Warbler in Colombia. Photo credit Carlos Bran

Goals

- 1. Rapidly discover and map new stopovers sites.
- 2. Determine habitat quality and stopover behavior at these sites
- 3. Develop conservation strategies at key stopover sites.
- 4. Train and build capacity among in-country biologists and managers to protect sites and continue long-term monitoring.

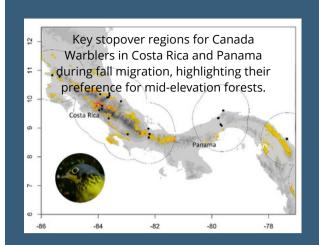


Over 1 billion migratory landbirds migrate annually between the Neotropics and North America. For many species, migration is the greatest source of mortality during their annual cycle, such that delayed arrivals or degradation at a single major stopover site can lead to significant declines, threatening the viability of populations across the Western Hemisphere.

To successfully migrate between their breeding and wintering grounds, Nearctic-Neotropical migrants depend on a series of stopover sites along the length of their migratory route, which provide critical resources such as the fuel for migratory flights, safe roosting sites, and refuges where birds can make emergency stops. Outside of North America, the funnel-shaped geography of Central America and the biogeography of northern Colombia, act as bottlenecks, concentrating millions of migratory landbirds into a tiny area (relative to their breeding grounds), magnifying the importance of Neotropical stopover sites. Further, birds migrating through this region face major barriers in the form of both the Caribbean Sea and the Gulf of Mexico, and it is likely that vital stopover regions exist where birds attain sufficient fuel to cross these barriers safely. Recent work on thrushes, vireos, and warblers on stopover in northern Colombia has shown that the energy reserves acquired there, may enable birds to not only cross the Caribbean Sea but also cover up to 40% of their total migration distance. There is an urgent need to identify major Neotropical stopover regions and assess the needs of birds within them to guide strategic on-the-ground conservation.

Latest Successes

- Intensive surveys during spring and fall migration completed across Colombia, Panama, Costa Rica, Nicaragua, Honduras and Guatemala.
- Over 200,000 individuals of 80+ species of migratory landbirds recorded during surveys and uploaded to eBird.
- Priority stopover regions in northern Colombia identified for 20 migratory landbirds and for Cerulean Warblers in Costa Rica.
- Conservation/education actions implemented in four priority regions in Colombia, including enriching stopover habitat by planting 23,000 trees.
- The "Corredor Azul" initiative was created in Costa Rica to work with landowners to increase tree cover for Cerulean Warblers on stopover sites.
- 45 Latin American biologists/birdwatchers trained in the identification of migratory birds, survey techniques, banding and use of Motus.



The Neotropical Flyways Project uses on-theground data collection to discover critical stopover habitats across six Central American countries and northern Colombia. Only by identifying stopover sites and habitats where birds accumulate the energy reserves for migration can we identify their needs at all stages of their life cycle. Between 2022 and 2023, occupancy surveys were completed across Honduras and southern Guatemala, generating thousands of records and unique information on likely stopover areas in the highlands of Honduras. At the same time tree planting and education activities continued in Colombia and Costa Rica, resulting in a 10 m long mural in a major migratory bottleneck in NW Colombia and the establishment of three new native tree nurseries with a capacity for producing 12,000 trees. Meanwhile, our migration station in Nicaragua, provided novel information on spring stopovers by Canada Warblers.

By working hand-in-hand with local communities, we ensure that data collection produces a high return for investments and directs conservation efforts into the most critical habitats. Local partners participate in training courses on monitoring migratory birds and receive subsequent advice on research and conservation projects over 3 years. By investing in local capacity, the NFP process allows for projects to be selfsustaining and effective with minimal cost. In Colombia and Costa Rica, this model has led to locally-led conservation actions that have resulted in the planting of 25,000 trees and the forging of positive relationships with local landowners.



Southern Wings offers a convenient and effective avenue to support full life-cycle conservation for migratory birds. Many migrants spend up to eight months of the year out of country. We cannot ignore the threats these birds face when they are beyond our borders and feel that we're doing all we can for bird conservation. Missouri Department of Conservation is proud to say we've supported Southern Wings since its inception in 2009 by contributing to various conservation efforts and projects that work to ensure non-breeding habitat for migrant birds that breed in Missouri."

~ Missouri Department of Conservation Director Sara Parker Pauley

