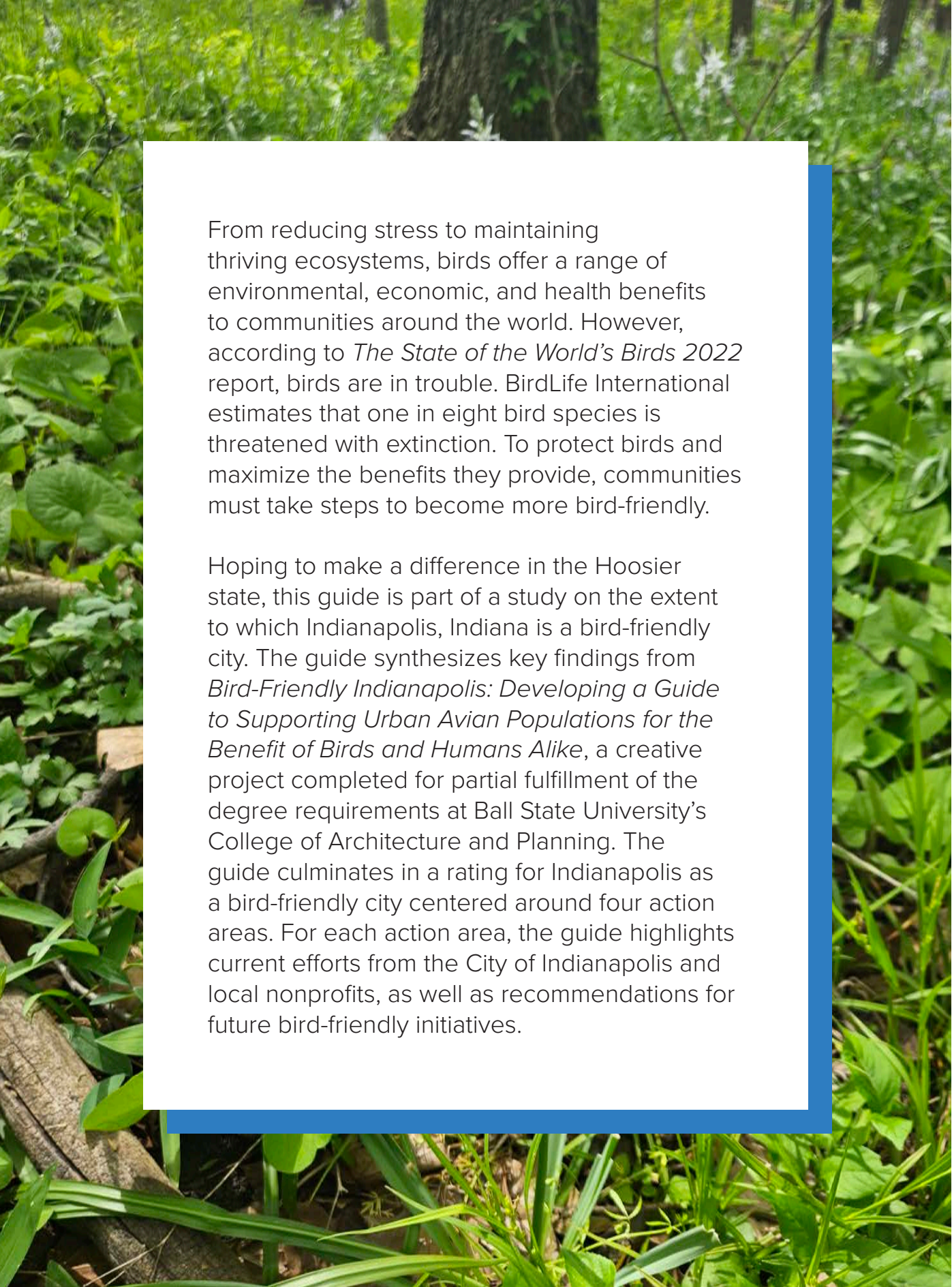




BIRD-FRIENDLY INDIANAPOLIS GUIDE

2023

Genevieve Zircher | Ball State University



From reducing stress to maintaining thriving ecosystems, birds offer a range of environmental, economic, and health benefits to communities around the world. However, according to *The State of the World's Birds 2022* report, birds are in trouble. BirdLife International estimates that one in eight bird species is threatened with extinction. To protect birds and maximize the benefits they provide, communities must take steps to become more bird-friendly.

Hoping to make a difference in the Hoosier state, this guide is part of a study on the extent to which Indianapolis, Indiana is a bird-friendly city. The guide synthesizes key findings from *Bird-Friendly Indianapolis: Developing a Guide to Supporting Urban Avian Populations for the Benefit of Birds and Humans Alike*, a creative project completed for partial fulfillment of the degree requirements at Ball State University's College of Architecture and Planning. The guide culminates in a rating for Indianapolis as a bird-friendly city centered around four action areas. For each action area, the guide highlights current efforts from the City of Indianapolis and local nonprofits, as well as recommendations for future bird-friendly initiatives.

Cover photo by Matt Zuro from the Cornell Lab of Ornithology's Macaulay Library.
Above photo by Genevieve Zircher.

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CHAPTER 01

INTRODUCTION



The Indiana Statehouse in downtown Indianapolis. Photo by Genevieve Zircher.

“Where birds thrive, people prosper.” This motto, often associated with the National Audubon Society, reflects the innate relationship between the well-being of birds and humans. Prior research has revealed that birds have a direct, as well as indirect, effect on human well-being. For example, studies have shown that people living in neighborhoods with more birds, shrubs, and trees were less likely to suffer from depression, anxiety, and stress (Cox et al., 2017). Additionally, birds thrive in a variety

of habitats, but tend to do well in areas with extensive tree canopies, native prairies, and preserved wetlands. Each of these habitats provides unique benefits to humans, from reducing urban heat island effects to flood prevention (Bowler et al., 2010; EPA, 2006). Emerging research focuses on applying the benefits of birds to urban environments by creating bird-friendly cities. A bird-friendly city is one which minimizes physical risks to birds and encourages the public to engage with and appreciate birds in daily life.



Top Left: A northern cardinal. Photo by Mason Maron from the Macaulay Library.

Top Right: The Bird Town Indiana program is an initiative of the Indiana Audubon Society. Sign from the Indiana Audubon Society.

Bottom: The Depew Memorial Fountain at University Park. Photo by Genevieve Zircher.

The Indiana Audubon Society encourages communities in Indiana to be more bird-friendly through their Bird Town program, launched in 2013. While Fort Wayne and Bloomington have both made efforts to become certified Bird Towns, the City of Indianapolis has yet to do the same. Out of a concern that Indianapolis may not be doing enough to protect native birds or maximize the benefits that birds provide, this guide explores the extent to which Indianapolis, Indiana, is a bird-friendly city.

The guide synthesizes key findings from the creative project, *Bird-Friendly Indianapolis: Developing a Guide to Supporting Urban Avian Populations for the Benefit of Birds and Humans Alike*. The guide culminates in a bird-friendliness rating for the city, which captures how well the physical environment, policies, programs, and organizations support birds and encourage residents to engage with wildlife. The purpose of the guide is to make the research accessible and actionable. By describing threats to birds and reflecting on current bird-friendly initiatives, the guide aims to increase public awareness of bird conservation in Indianapolis. Additionally, the guide offers recommendations for future initiatives that can be implemented by local stakeholders.

CHAPTER 02

BACKGROUND



The Canal Walk in downtown Indianapolis. Photo by Genevieve Zircher.

What is a bird-friendly city?

A bird-friendly city is one which minimizes physical risks to birds and encourages the public to engage with and appreciate birds in daily life.

Right: Lofts in downtown Indy. Photo by Genevieve Zircher.

Below: Eagle Creek Reservoir. Photo by Genevieve Zircher.



Bird-friendly cities have much in common with biophilic cities. Biophilic cities are those that “provide close and daily contact with nature... but also seek to foster an awareness of and caring for this nature” (Beatley & Newman, 2013). Both biophilic cities and bird-friendly cities are rooted in the concept of biophilia, the “innately emotional affiliation of human beings to other living organisms” (Beatley & Newman, 2013). In simpler terms, humans are drawn to nature. We’re fascinated by the world we live in and the creatures we share it with. Following this logic, urban planners and community leaders should seek to integrate nature into cities to maximize the well-being of residents. Biophilic cities and bird-friendly cities offer slightly different approaches to this urban-nature integration.

The concept of biophilic cities focuses broadly on the intersection of nature and humanity within the urban environment, incorporating elements such as green building design and green space access. Conversely, the concept of bird-friendly cities refines this idea by focusing specifically on birds and the vital role they play in natural and built environments. The idea of bird-friendly cities represents a collective interest

in bird conservation, but the concept itself benefits from having a symbol (or a mascot) for sustainable initiatives – sometimes quite literally. For example, the City of Vancouver designated Anna’s Hummingbird as their official “City Bird” (Vancouver Bird Advisory Committee, 2020). People may resonate more with a program or policy designed to help a particular living creature (like a hummingbird). Even without a city bird, the goal of making a community more welcoming to native wildlife is generally appealing.

As an extension of biophilic urbanism, bird-friendly cities are expected to provide similar benefits to humans that biophilic cities are theorized to. In “Biophilic Cities are Sustainable, Resilient Cities” (2013), Beatley and Newman describe how biophilic cities strengthen the adaptive capacity of urban residents, leading to resilient outcomes. Essentially, with access to nature, residents adopt healthier behaviors (walking, hiking, biking), help each other more, create friendships, and develop strong commitments to the places they call home. As this adaptive capacity builds, residents experience resilient outcomes, including reduced loss of life, reduced economic disruption, reduced ecological damage, and improved health. In essence, residents live happier and more meaningful lives. Bird-friendly cities can provide these benefits, and the unique benefits attributed to birds. As such, it’s important for cities around the world to make efforts to become more bird-friendly for the benefit of humans and birds alike.

What benefits do birds provide?



*A northern cardinal in an eastern redbud tree.
Photo by Zachary Vaughan from the Macaulay Library.*

Past research has explored the benefits that birds provide humans, from mental health benefits to environmental benefits. Even in cities, the presence of birds can have a positive impact on residents' daily lives.

Supporting Our Mental Health and Emotional Well-Being

At the University of Exeter, Daniel T. C. Cox and colleagues conducted a study on the mental health benefits of birds (Cox et al., 2017). They found that afternoon bird abundance lowered feelings of depression, anxiety, and stress for urban residents. Other researchers, authors, and creatives (e.g. Rachel L. Carson, Kyo Maclear, Katie Fallon, and Joe Harkness) have described the soothing effects of seeing or hearing birds, including University of Virginia professor, Timothy Beatley. In *Bird-Friendly City* (2020), Beatley remarks that “birdsong has delivered doses of hope and optimism and pleasure” throughout his life (p. 4). Birds charm us and help us feel connected to nature, even in bustling urban environments.

Contributing to Local Economies

Birds also provide economic benefits. For instance, vultures aid in waste management and sanitation, insectivorous birds keep mosquito populations in check, and hummingbirds help pollinate community gardens and urban agricultural operations (Beatley, 2020). Each of these contributions has significant monetary value. Ecotourism and birdwatching can also be economic drivers.



Each year, the Eagle Creek Park Ornithology Center attracts over 70,000 visitors from over 40 U.S. states and 15 countries. Photo by Genevieve Zircher.

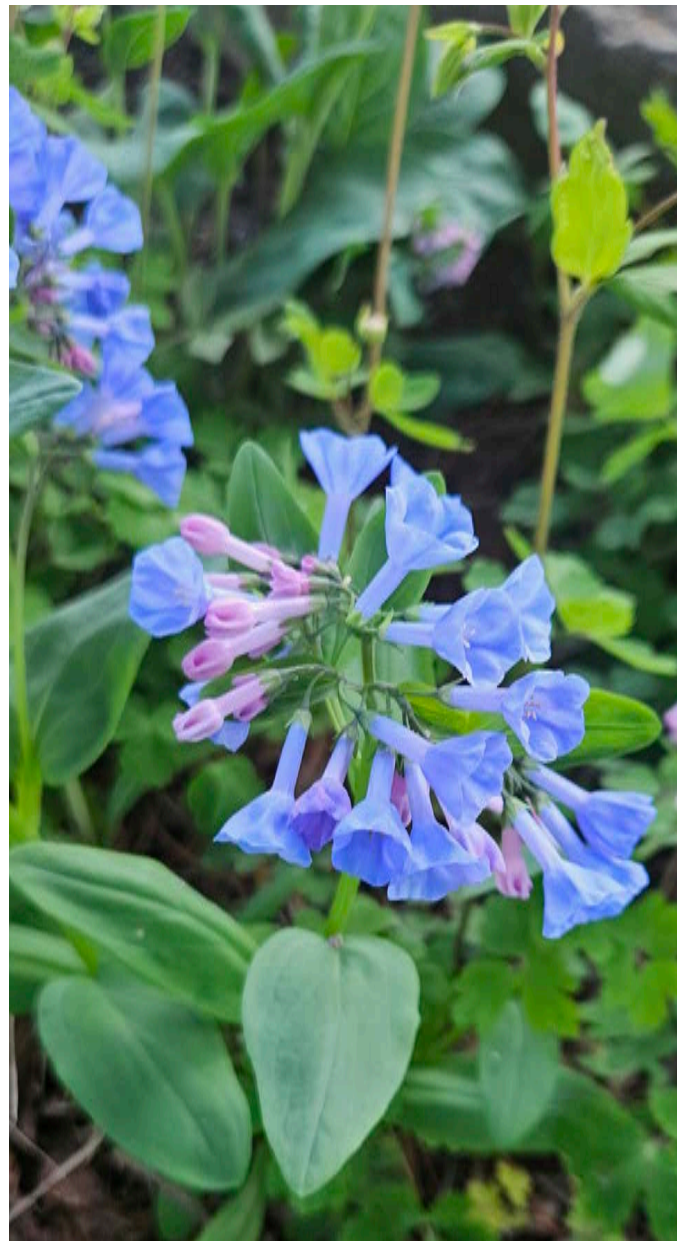
According to the National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, there are 45.1 million bird watchers in the United States. 36% (16.3 million) of these individuals travel away from home to observe wild birds (U.S. Fish and Wildlife Service, 2016). According to BirdLife International, birders spend an estimated \$39 billion each year on bird-related trips and equipment in the United States (Haskell, 2022). There are opportunities for cities to capitalize on native birds, whether migratory or year-round residents, as local assets.



A family learns about birds at the Eagle Creek Ornithology Center. Photo by Genevieve Zircher.

Helping Ecosystems Thrive

Birds provide crucial environmental benefits. According to Dr. Christopher J. Whelan of the University of Illinois at Chicago, birds play an important role in ecosystems around the world, serving as “predators, pollinators, scavengers, seed dispersers, seed predators, and ecosystem engineers” (Whelan et al., 2008). Even in death, the bodies of birds contribute to nutrient cycles, such as the carbon cycle, keeping nature in balance. Additionally, birds thrive in a variety of habitats but tend to do well in areas with extensive tree canopies, native prairies, and preserved wetlands. In these habitats, birds serve as indicators of environmental health, particularly biodiversity (Gregory & Strien, 2010). When we protect birds, we protect these important habitats. Each of these habitats supports a diverse range of flora and fauna, while also providing unique benefits to humans, from reducing urban heat island effects to flood prevention (Bowler et al., 2010; EPA, 2006). As climate change puts increasing pressure on communities around the world, the benefits of birds and their native habitats cannot be understated.



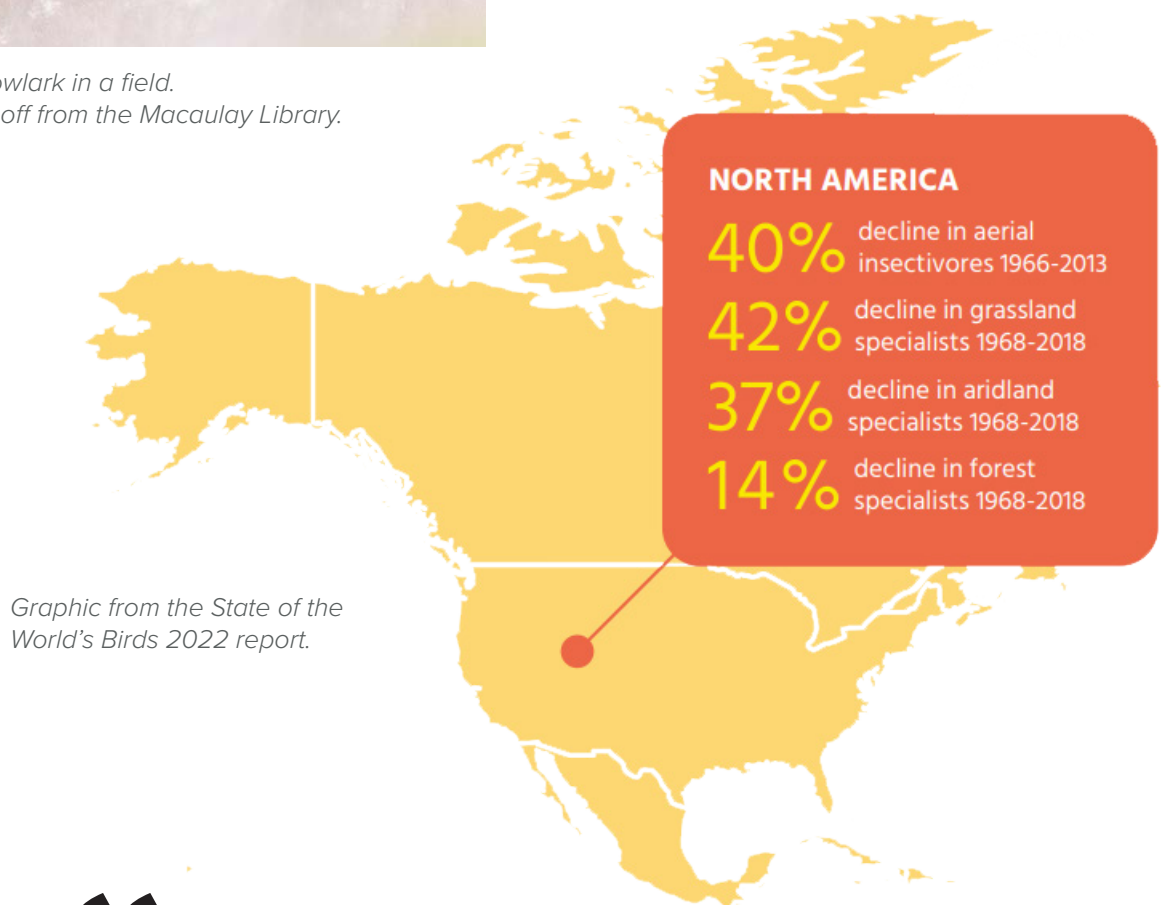
Virginia bluebells at Washington Park. Photo by Genevieve Zircher.

What are the threats facing birds?



An eastern meadowlark in a field.
Photo by Brad Imhoff from the Macaulay Library.

Despite the benefits that birds provide, their situation is rather precarious. Since 1970, bird populations in North America have declined by 29%, a net loss of approximately 3 billion birds (Rosenberg et al., 2019). According to BirdLife International's *State of the World's Birds 2022* report, "one in eight bird species [around the world] is threatened with extinction" (Haskell, 2022, p. 3). Many of the threats facing birds are anthropogenic in origin.



Graphic from the *State of the World's Birds 2022* report.

“

[O]ne in eight bird species [around the world] is threatened with extinction.

*Quote from Lucy Haskell
Science Officer for BirdLife
and lead author of State of the
World's Birds report.*

From left to right:

A cat catches a bird. Stock photo from Shutterstock.

A dead robin. Photo by ro5ered on iNaturalist.

A protest sign. Stock photo by Markus Spiske.

Cat Predation



In the United States, predation by free-ranging domestic cats is responsible for an alarming 1.3 - 4 billion bird fatalities annually (Loss et al., 2013). Dr. Scott Loss, a professor of Natural Resource Ecology and Management at Oklahoma State University, is particularly concerned about this predation. If left unchecked, Dr. Loss and his colleagues predict that domestic cats will contribute to the decline of native bird populations, disrupting North American ecosystems.

Window Strikes



The built environment itself presents another significant threat to birds. An estimated 365 to 988 million birds die annually from building collisions in the United States (Loss et al., 2014). Because of its reflective nature, mirroring trees, vegetation, and the open sky, birds don't perceive glass as a barrier. This means that windows and other glass surfaces can be deadly hazards. Birds are also negatively impacted by light pollution, chemical pollution, noise pollution, vehicle collisions, and habitat loss associated with urbanized environments (Seress & Liker, 2015).

Climate Change



On a global scale, birds experience instability due to the far-reaching effects of climate change. Rising temperatures can disrupt a bird's "maintenance (the energy needed by organisms to maintain their basal levels of activity and condition), reproduction, [the] timing of breeding and migration," ultimately reducing their survival rates (King & Finch, 2013). The outlook for birds may seem bleak, if not for an emerging interest in making cities safer, more accommodating places for our feathered friends.

Why Indianapolis?

Researchers have studied bird-friendly cities around the world, from Toronto to Singapore.

Some communities have developed official bird strategies or adopted building and design guidelines. Others are pursuing bird-friendly projects through public programs, private development, nonprofit work, and/or grassroots efforts. Out of these endeavors, little has been written about bird-friendly pursuits in the Midwest, let alone in Indiana. This guide addresses that gap in the literature.

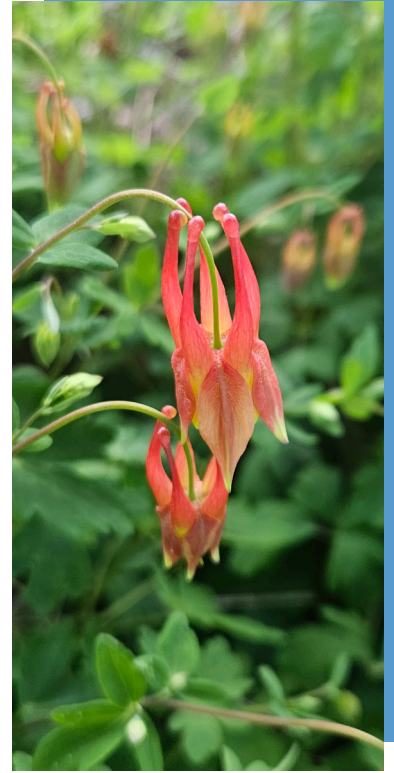


Photo by Genevieve Zircher.



*Looking down Mass Ave in downtown Indianapolis.
Photo by Genevieve Zircher.*

Additionally, despite being Indiana's capital city, Indianapolis has yet to participate in the state's premiere bird-friendly program. Established in 2013 by the Indiana Audubon Society, Bird Town Indiana recognizes communities across the state that demonstrate a commitment to preserving native bird populations. Although other communities, from Fort Wayne to Bloomington, have opted into the program, Indianapolis has yet to do the same. By exploring current programs, policies, and initiatives, this guide aims to investigate the extent to which Indianapolis is a bird-friendly city and determine whether the city is truly lagging behind its peers. The goal is to ensure that the city maximizes the benefits of birds and contributes meaningfully to bird conservation.

The Idle is a public park overlooking the I-65 and I-70 interchanges in Indianapolis.
Photo by Genevieve Zircher.

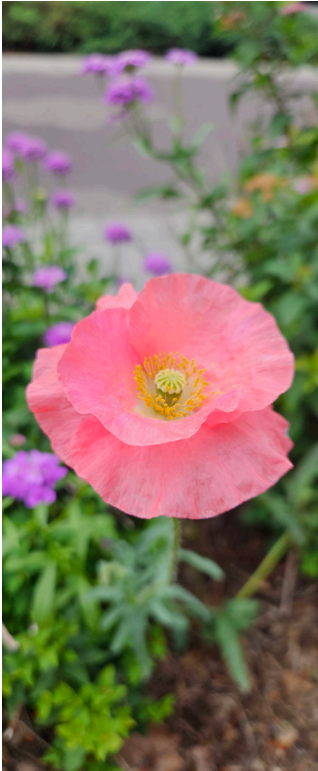


Photo by Genevieve Zircher.





The Activity Center at Southeastway Park. Photo by Genevieve Zircher.

CHAPTER 03

RESEARCH PROCESS

This guide is part of *Bird-Friendly Indianapolis: Developing a Guide to Supporting Urban Avian Populations for the Benefit of Birds and Humans Alike*, a creative project conducted for partial fulfillment of the Master of Urban and Regional Planning degree requirements at Ball State University's College of Architecture and Planning. The research process involved reviewing literature on bird-friendly cities, developing a unique scale to rate Indianapolis, and employing research instruments to assess the city. Research instruments included mapping and analysis with ArcGIS Pro, interviews with stakeholders, and descriptive inventories of parks/nature preserves, bird-related organizations, and bird-focused programs and policies in Indianapolis.



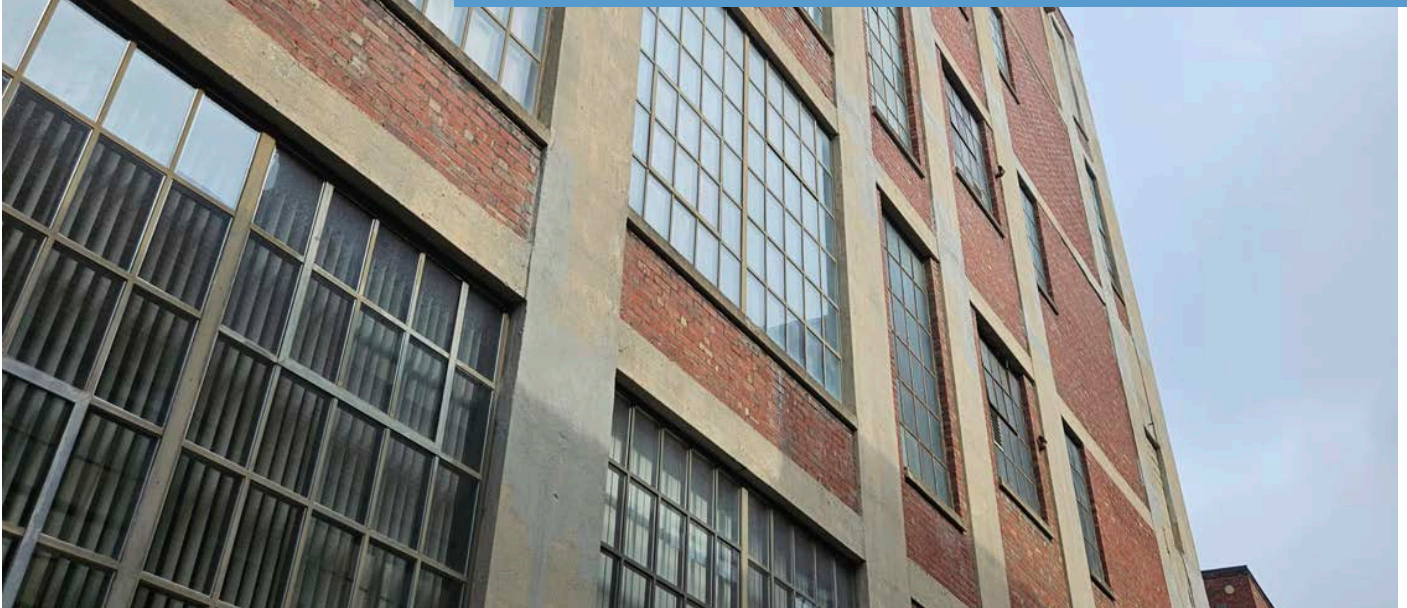
A downy woodpecker. Photo by Matthew Plante from the Macaulay Library.

*A repurposed industrial building in downtown Indianapolis.
Photo by Genevieve Zircher.*



As part of the research process...

- Five maps were created to assess physical characteristics in Indianapolis, including land cover, impervious surface cover, tree cover, the distribution of parks, and the distribution of water bodies and wetlands.
- Ten stakeholders were interviewed, including representatives of the City of Indianapolis, Indiana Audubon Society, Amos Butler Audubon Society, and Central Indiana Land Trust.
- Site visits were conducted at six parks and nature preserves in Indianapolis to assess physical conditions, engagement opportunities, and accessibility.
- In addition to the six parks/preserves, descriptive inventories were completed for 15 organizations, 17 programs, and 8 policies impacting Indianapolis' status as a bird-friendly city.

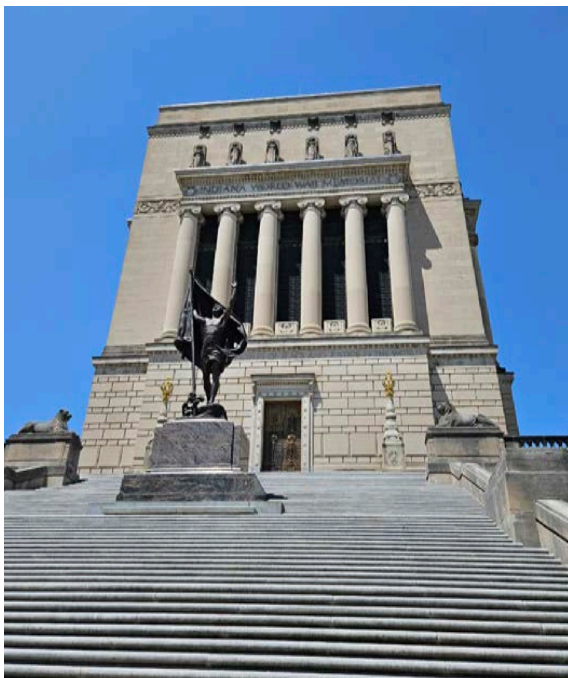


CHAPTER 04

RATING INDIANAPOLIS

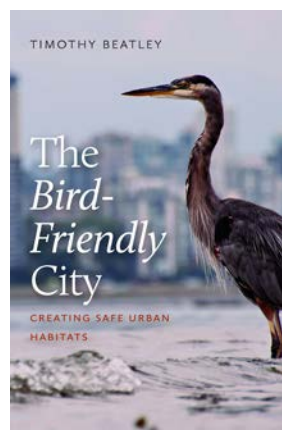
Bird-Friendly Scale

As part of the research process, a unique scale was developed to assess ‘bird-friendliness’ in Indianapolis. The scale was created by combining criteria from two different models for bird-friendly cities. The first model comes from *The Bird-Friendly City: Creating Safe Urban Habitats* by sustainable city researcher, author, and professor Timothy Beatley. The second model comes from the Indiana Audubon Society’s Bird Town Indiana program. The goal is for the scale to be ambitious, yet sensitive to social, political, and environmental contexts. The scale can reasonably be used to analyze cities in Indiana and the greater Midwest.



*The Indiana War Memorial in downtown Indy.
Photo by Genevieve Zircher.*

The scale features four distinct categories (i.e., action areas), each with its own set of criteria. The four categories are Planning for Bird Conservation, Protecting and Promoting Nature in the City, Reducing Hazards to Birds, and Education and Engagement. Communities are rated from Poor to Outstanding (i.e., 1 to 5) based on the proportion of criteria met and how well-distributed criteria (i.e., the associated programs, amenities, and initiatives) are geographically. Table 1 outlines the categories and criteria for a model bird-friendly city. A checkmark has been placed next to criteria that Indianapolis successfully meets. For criteria the city has yet to meet, there is an unchecked box. Table 2 describes the ratings on the scale (i.e., the extent to which a city can be considered ‘bird-friendly’).



*Left: The cover to *The Bird-Friendly City* by Tim Beatley.*

Below: The logo for the Indiana Audubon Society.

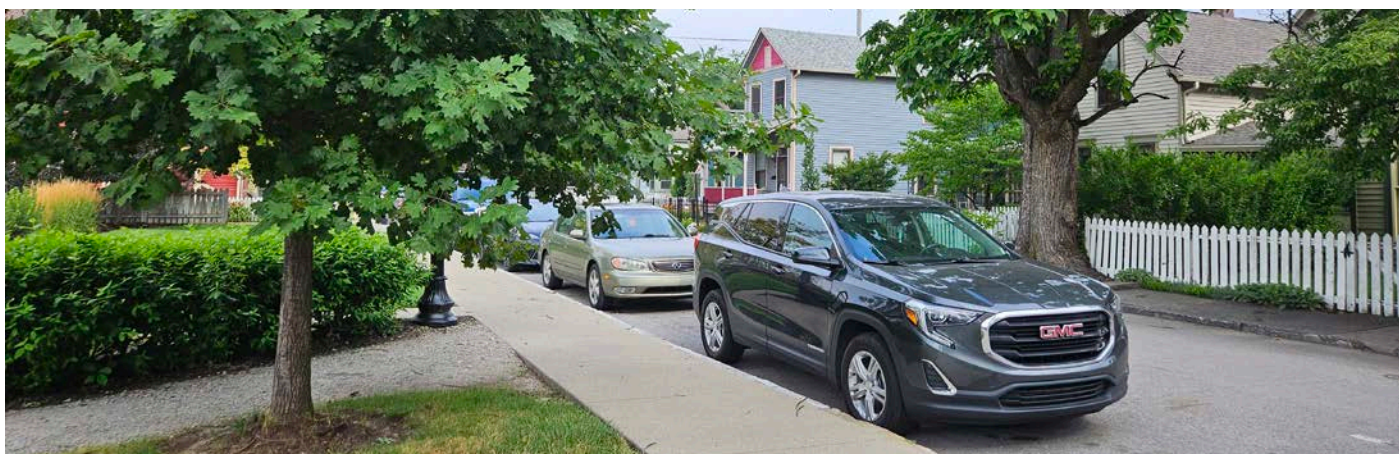


Table 1: Categories and Criteria for a Bird-Friendly City

A model 'bird-friendly' city meets all (or most) of the following criteria...
Category 1: Planning for Bird Conservation
<ul style="list-style-type: none"><input type="checkbox"/> The city has an official bird strategy.<input checked="" type="checkbox"/> The city's comprehensive plan mentions birds or the intent to protect and expand bird habitat.<input checked="" type="checkbox"/> The city's zoning ordinances feature a conservation or protection district that safeguards wildlife habitat from intrusive development.<input type="checkbox"/> The city designates one or more official city birds.<input type="checkbox"/> The city has a standing bird advisory committee.
Category 2: Protecting and Promoting Nature in the City
<ul style="list-style-type: none"><input checked="" type="checkbox"/> The city has many public parks and other places to watch birds.<input checked="" type="checkbox"/> The city has tree-lined, pedestrian-friendly sidewalks and trail networks.<input checked="" type="checkbox"/> Parks, nature preserves, and green spaces are planted with bird-friendly plants.<input checked="" type="checkbox"/> Water bodies and wetlands are preserved and feature native plants and natural shorelines.<input checked="" type="checkbox"/> Local ordinances encourage new development to limit impervious surfaces, instead maximizing green space and utilizing permeable pavement alternatives.<input checked="" type="checkbox"/> Local ordinances do not restrict "wild" or natural lawns and landscaping.<input type="checkbox"/> The city offers public information on the control and removal of invasive species.<input checked="" type="checkbox"/> The city participates in "Tree City, USA" or an equivalent program focused on urban forestry and/or natural resource management.
Category 3: Reducing Hazards to Birds
<ul style="list-style-type: none"><input type="checkbox"/> The city has mandatory bird-safe building standards for new development.<input type="checkbox"/> The city provides property owners with information on how to protect birds from window strikes.<input type="checkbox"/> The city has adopted an official lights out program for migratory seasons that involves mandatory participation from municipal-owned properties (backed by law) and voluntary participation from privately-owned properties.<input checked="" type="checkbox"/> The city controls free-roaming cats with an educational program, Trap-Neuter-Release (TNR) program, or other related programs.<input checked="" type="checkbox"/> The city features one or more wildlife rehabilitation centers.
Category 4: Education and Engagement
<ul style="list-style-type: none"><input checked="" type="checkbox"/> City residents can join active, bird-related social groups and organizations.<input checked="" type="checkbox"/> Many organized bird walks are available, as well as other events that make the enjoyment of birds easy.<input checked="" type="checkbox"/> The city is represented in at least one bird monitoring program such as the Christmas Bird Count, Great Backyard Bird Count, Indiana Audubon Society Big May Day Count, or Swift Night Out.<input type="checkbox"/> The city officially recognizes and celebrates World Migratory Bird Day.<input type="checkbox"/> The city provides information to property owners on methods to create and enhance backyard habitats for birds.<input checked="" type="checkbox"/> Local parks host abundant citizen science opportunities to engage the public and promote awareness of native birds.<input checked="" type="checkbox"/> Schools or educators incorporate birds in their curriculum through field trips, programs like Flying WILD, or through other means.

Table 2: Rating Bird-Friendly Cities

<p>This scale assigns ‘bird-friendly’ ratings from Poor (1) to Outstanding (5). The rating is based on how well a city meets the criteria described in Table 1 AND how well-distributed those criteria (and their benefits) are throughout the city. A model city strives to meet all the criteria in each of the categories while also ensuring that criteria are equitably designed and thoughtfully implemented. Bird-friendly cities should benefit all residents.</p>	
<p>Outstanding (5)</p>	
<p>Meets all or nearly all of the criteria in each category. The criteria (parks, programs, etc.) are also well-distributed throughout the city to maximize the benefits to both birds and humans in an equitable manner.</p>	
<p>Very Satisfactory (4)</p>	
<p>Meets more than half of the criteria for each category. The criteria (parks, programs, etc.) are mostly well-distributed, but there may be limited neighborhoods where bird-related initiatives and investments are lacking.</p>	
<p>Satisfactory (3)</p>	
<p>Meets approximately half of the criteria in each category. The criteria may be somewhat unequally distributed. For example, some parts of the city may have more parks, programs, and local organizations than other areas. City officials must stay alert to potential issues of social and environmental equity.</p>	
<p>Unsatisfactory (2)</p>	
<p>Meets less than half of the criteria for each category. The criteria are unequally distributed with parks, programs, and organizations concentrated in a few parts of the city. City officials should investigate issues of social and environmental equity.</p>	
<p>Poor (1)</p>	
<p>Fails to meet all or most of the criteria for one or more categories. The criteria (parks, programs, etc.) are concentrated in more affluent parts of the city, benefiting predominantly white residents. This pattern fails to effectively support urban avian populations and calls into question issues of social and environmental equity.</p>	



A residential neighborhood in Indianapolis. Photo by Genevieve Zircher.

Final Rating and Assessment

The bird-friendly scale assigns ratings from Poor (1) to Outstanding (5). The rating is based on how well the given city (1) meets the criteria described in each of the four categories and (2) how well-distributed those criteria (and their benefits) are throughout the city. A model city strives to meet all the criteria in each of the categories while also ensuring that criteria are equitably designed and thoughtfully implemented. Bird-friendly cities should benefit all residents, regardless of race and socio-economic class.

Overall, the City of Indianapolis receives a score of Satisfactory (3) on the bird-friendly scale. The Satisfactory rating indicates that Indianapolis meets approximately half of the criteria in each category, even though the city may be stronger in some categories than others. Indianapolis excels in *Protecting and Promoting Nature in the City* and *Education and Engagement*.

3/5 City of Indianapolis
2023 Final Rating
Satisfactory

Unfortunately, criteria that have been met may not benefit everyone in Indianapolis to the same degree. While policy-based criteria can be applied across the city's jurisdiction, other criteria tend to benefit the residents of affluent, white neighborhoods. For example, the following criteria may not be equitably distributed:

- Tree-lined sidewalks and trails;
- Parks with nature-based programming, interpretive staff, and citizen science opportunities;
- Natural water bodies and wetlands;
- Bird walks and other social events.



*A red-tailed hawk perches on a pole.
Photo by John Troth from the Macaulay Library.*

City residents residing in majority black and Hispanic neighborhoods on both the eastside and westside may have fewer opportunities to engage with birds due to a lack of preserved habitat (including smaller public parks) and a deficiency of nature-based events and programming. City officials should stay alert to potential issues of social and environmental equity. The city's rating indicates that there are areas for improvement to better serve residents and protect native wildlife

CHAPTER 05

ACTION AREAS

Planning for Bird Conservation

This action area centers on the efforts of local government to protect birds and bird habitat through traditional municipal tools, including policy documents, zoning ordinances, and advisory committees.

Current Actions

- The *Indy Parks Comprehensive Master Plan 2016-2021* mentions birds 25 times in reference to the importance of parks as both bird habitat and recreational sites for birdwatching.
- *Thrive Indianapolis*, the city's plan for community resilience and sustainability, includes goals for promoting native planting, expanding the tree canopy, removing invasive species, and reducing impervious surfaces.
- The regional *White River Vision Plan* sets actionable goals for restoring the health of the White River and adjacent habitat.
- The city's *Land Use Pattern Book* designates an Environmentally Sensitive Areas Overlay designed to protect "high-quality woodlands, wetlands, and other natural resources."



The Bird City Network (BCN), launched in June 2023, unites Bird City Programs across the Americas to foster innovation in bird conservation. Art by Cindy Menjivar.



Thrive Indianapolis is the city's guide to long-term sustainability. Cover from the Office of Sustainability.

Recommendations

- 1.1 Adopt the Bird-Friendly Indianapolis Guide as an official guiding document.
- 1.2 Create a standing bird advisory committee to tackle bird conservation issues and brainstorm cross-sector solutions in Indianapolis.
- 1.3 Designate an official city bird to enhance public awareness of conservation issues and demonstrate Indianapolis' interest in addressing these issues.
- 1.4 Coordinate with the Indiana Audubon Society to become a certified Bird Town.
- 1.5 Participate in the national Bird City Network.



Top: The White River flows through Hamilton County before moving south through Indianapolis. Photo by Genevieve Zircher.



Left: Once a federal- and state-endangered species, bald eagles have rebounded in Indiana thanks to dedicated conservation efforts. Today, bald eagles can be found nesting along the White River in Indianapolis. Photo by Brian Smith from the Macaulay Library.

“

By setting goals to restore and preserve habitat in urban areas, plans like the White River Vision Plan contribute to bird conservation.

Protecting and Promoting Nature in the City

This action area focuses on the preservation, character, and quality of greenspaces. This category also addresses efforts to incorporate nature in developed areas by reintroducing native plants, restoring natural shorelines, transitioning to native lawns, and removing invasive species. By protecting and promoting nature in the city, both within designated parks/preserves, as well as outside of these public spaces, Indianapolis supports the environmental health of Marion County and Central Indiana. A city that supports a thriving ecosystem also supports a thriving population. Many of the initiatives in this action area have far-reaching effects on resident health and well-being, from providing outdoor recreation opportunities to protecting air and water quality.



*A blue jay perches in a tree.
Photo by Martina Nordstrand
from the Macaulay Library.*



*Oliver's Woods protects 53 acres of habitat in Indianapolis.
Photo by Genevieve Zircher.*

Current Actions

- Indy Parks and Recreation operates and maintains 214 parks, which account for 11,608 acres of preserved greenspace. The largest of these is the 5,300-acre Eagle Creek Park.
- Indianapolis is home to two state parks, including the 1,700-acre Fort Harrison State Park. The Fort Harrison State Park features both publicly accessible recreation areas and private nature preserves.
- Greenways crossing through the city serve as important wildlife corridors, linking parks and other greenspaces. By increasing connectivity, greenways help reduce habitat fragmentation. Greenways in Indianapolis include the 22.6-mile Fall Creek Greenway, the 17.8-mile White River Greenway, the 10.3-mile Monon Trail, and many others.
- The Central Indiana Land Trust, a local nonprofit, owns and manages three nature preserves in Indianapolis. The preserves are located along the White River, helping protect riparian habitat.



Recommendations

2.1 Coordinate with Keep Indianapolis Beautiful, Reconnecting to Our Waterways, and the Indiana Native Plant Society to provide information about the control and removal of invasive species on the city's website.

2.2 Pursue opportunities to incorporate a diverse mix of native plant species in Indy parks, especially in downtown parks and neighborhood parks.

2.3 Implement recommendations of the Indianapolis/Marion County Pedestrian Plan and Indy Greenways Master Plan to expand pedestrian infrastructure in underserved neighborhoods.

2.4 Use the Environmentally Sensitive Areas Overlay to protect remaining wetlands in Indianapolis from disruptive development.

Top: A trail winds through Eagle Creek Park.

Right: Native plants for sale outside of the Earth Discovery Center at Eagle Creek Park.



Reducing Hazards to Birds

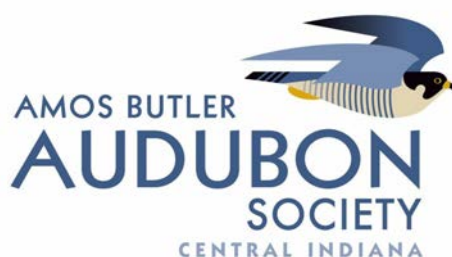
Birds are experiencing threats to their survival, many of which are anthropogenic in nature. Since 1970, bird populations in North America have declined by 29%, a net loss of approximately 3 billion birds (Rosenberg et al., 2019). Birds offer environmental, economic, and intrinsic value to communities across the United States. Consequently, to protect birds as the unique asset that they are, it's important to reduce bird fatalities. This action area focuses on minimizing the threats facing birds in urban environments, from window strikes to light pollution to cat predation.



*Downtown Indianapolis at night.
Photo by Genevieve Zircher.*

Current Actions

- The Amos Butler Audubon Society's Lights Out Indy initiative is focused on preventing bird deaths and saving energy by promoting bird-safe buildings and reducing nighttime lighting.
- Operation Night Light was a collaborative initiative between the City of Indianapolis and AES Indiana in 2016 to retrofit 26,434 streetlights with high-efficiency LED lights to save energy, improve safety, and decrease light pollution at night.
- The Trap-Neuter-Return program from Indy Neighborhood Cats and the Indy Humane Society traps free-roaming cats and neuters them, preventing them from reproducing. The goal of the program is to slowly reduce the cat population, allowing native bird populations to rebound.



Lights Out Indy is an initiative of the Amos Butler Audubon Society, a chapter of the National Audubon Society serving Central Indiana.

Recommendations

3.1 Share information from the Cornell Lab of Ornithology, National Audubon Society, and American Bird Conservancy about how property owners can prevent bird window strikes.

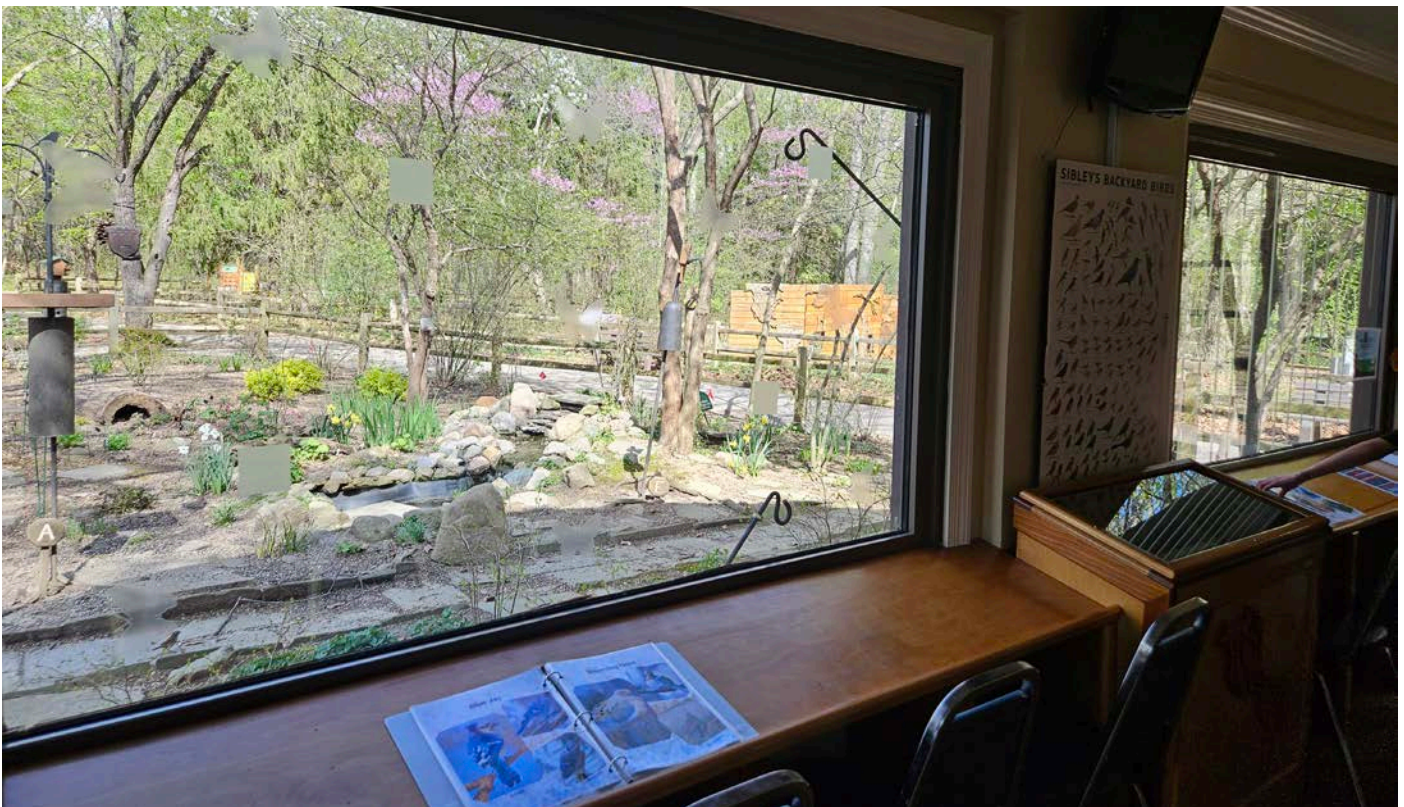
3.2 Adopt an ordinance requiring municipal-owned properties to participate in Lights Out Indy.

3.3 Partner with the Amos Butler Audubon Society (ABAS) to expand the Lights Out Indy program through funding or administrative assistance. Consider making the program an official city program, or a joint venture between the City of Indianapolis and ABAS.

3.4 Coordinate with the Amos Butler Audubon Society to develop and adopt bird-safe building standards for consideration in the issuance of development permits. The American Bird Conservancy's Model Bird-Friendly Building Guidelines may serve as a starting point for discussion.



The Bird-Friendly Building Design Guide from the American Bird Conservancy and the New York City Audubon provides solutions to mitigate window strikes. The guide also contains a model ordinance for bird-friendly construction. An updated version of this ordinance from November 2022 can be found on the American Bird Conservancy's website.



Decals are applied to the windows in the observation room at the Eagle Creek Ornithology Center, allowing visitors to see out while preventing window collisions. Photo by Genevieve Zircher.

Education and Engagement

The final action area focuses on educating city residents about birds, as well as providing residents with opportunities to see, hear, and enjoy birds in their community. Experiences with birds, from peaceful solo excursions to social gatherings with friends and family, can spark curiosity, promote relaxation and mental clarity, and instill a love of nature in urban residents. As people become familiar with and learn to appreciate birds, they may become inspired to care for the environment in a broader sense, taking steps to lead more sustainable lifestyles, act as environmental stewards, and/or advocate for the environmental health of their city.



A nature-themed play area at the Holliday Park Nature Center. Photo from the Holliday Park Foundation.



Above: The exhibit hall in the Eagle Creek Ornithology Center features approximately 100 taxidermy birds. Photo by Genevieve Zircher.

Left: Visitors can observe taxidermy birds up close to learn how to better ID them in the wild. Photo by Genevieve Zircher.

Current Actions

- Interpretive staff at Indianapolis nature centers offer field trips for K-12 students to learn about native wildlife.
- Parks and preserves throughout the city offer weekly and monthly programs to learn about the natural environment. Programs include naturalist-led hikes, beginning birder workshops, bird counts, and educational programs centered around specific species.
- The Amos Butler Audubon Society (ABAS), a chapter of the National Audubon Society, serves Central Indiana and provides ample opportunities for members to engage with and learn about birds.
- BirdIndy, a collaborative effort between the City of Indianapolis and community partners, was established in response to the enactment of the Urban Conservation Treaty for Migratory Birds in 2011. Notable achievements included developing a trail guide, installing educational signage, creating an interactive app, and making birding kits available at local libraries. The program was discontinued but could be brought back at any time.

Recommendations

4.1 Recognize and celebrate World Migratory Bird Day by hosting special events at public parks.

4.2 Encourage homeowners, businesses, schools, and churches to participate in the Indiana Wildlife Federation’s Certified Wildlife Habitat program to create thriving greenspaces for Hoosier wildlife.

4.3 Bring back the Bird Indy program to support the enjoyment of birds in parks and greenspaces across Indianapolis. Update and restore the Bird Indy page on the city’s website to help residents find birding sites near them.

4.4 Use a Lighter, Quicker, Cheaper approach to enhance the visitor experience in Indy parks and encourage learning. For example, add signage educating visitors about native wildlife, create more opportunities to sit and watch birds, and/or recruit local artists to paint nature-inspired murals and sidewalk art.

4.5 Hire a small unit of interpretive naturalists that can travel to different Indy parks, particularly those in underserved communities without access to a nature center or staff naturalists, to facilitate educational events and programs.



A BirdIndy sign at Washington Park directs visitors to a broken webpage. Photo by Genevieve Zircher.



Established in 1993, World Migratory Bird Day is an annual global campaign that celebrates the migration of birds across countries and continents. Art by Augusto Silva.



A sign at Eagle Creek Park allows visitors to measure their ‘wingspan.’ Photo by Genevieve Zircher.

CHAPTER 06

IMPLEMENTATION

This chapter summarizes recommendations for future initiatives that the city may pursue to become a model bird-friendly community in the State of Indiana, and the broader Midwest. Each recommendation is accompanied by an estimated cost, responsible parties, and a suggested timeframe. Short-term projects can be achieved in 1-2 years and long-term projects can be achieved in 3-5 years.

Table 3: Recommendations for Future Initiatives in Indianapolis

Category 1: Planning for Bird Conservation			
Recommendation	Estimated Cost	Responsible Parties	Timeframe
1.1 Adopt the Bird-Friendly Indianapolis Guide as an official guiding document.	No Cost	City-County Council, Metropolitan Development Commission	Short
1.2 Create a standing bird advisory committee to tackle bird conservation issues and brainstorm cross-sector solutions in Indianapolis. Following the example of the Vancouver Bird Advisory Committee, members should represent diverse interests and institutions.	No Cost	City-County Council, Indy Parks and Recreation, Amos Butler Audubon Society	Short
1.3 Designate an official city bird to enhance public awareness of conservation issues and demonstrate Indianapolis' interest in addressing these issues. In Vancouver and Seattle, residents voted for their official city bird. Voting can be conducted online, or in-person at nature centers, city parks, and school classrooms.	Little to No Cost for Voting Materials	City-County Council, Indy Parks and Recreation, Amos Butler Audubon Society	Short
1.4 Coordinate with the Indiana Audubon Society to become a certified Bird Town.	\$100 application fee	Office of the Mayor, Indy Parks and Recreation, Indiana Audubon Society	Short
1.5 Participate in the national Bird City Network.	No Cost	Office of the Mayor, Indy Parks and Recreation, Bird City Network	Short

Category 2: Protecting and Promoting Nature in the City

Recommendation	Estimated Cost	Responsible Parties	Timeframe
2.1 Coordinate with Keep Indianapolis Beautiful, Reconnecting to Our Waterways, and the Indiana Native Plant Society to provide information about the control and removal of invasive species on the city’s website.	No Cost	Office of Sustainability, Keep Indianapolis Beautiful, Reconnecting to Our Waterways, Indiana Native Plant Society	Short
2.2 Pursue opportunities to incorporate a diverse mix of native plant species in Indy parks, especially in downtown parks and neighborhood parks.	Project-Dependent	Department of Public Works, Indy Parks and Recreation	Ongoing
2.3 Implement recommendations of the Indianapolis/Marion County Pedestrian Plan and Indy Greenways Master Plan to expand pedestrian infrastructure in underserved neighborhoods.	Project-Dependent	Department of Public Works, Greenways Development Committee	Ongoing
2.4 Use the Environmentally Sensitive Areas Overlay to protect remaining wetlands in Indianapolis from disruptive development.	No Cost	Department of Metropolitan Development	Ongoing



A ruby-throated hummingbird sipping nectar from a flower. Photo by Ryan Yann from the Macaulay Library.

Category 3: Reducing Hazards to Birds

Recommendation	Estimated Cost	Responsible Parties	Timeframe
3.1 Share information from the Cornell Lab of Ornithology, National Audubon Society, and American Bird Conservancy about how property owners can prevent bird window strikes.	No Cost	Office of Sustainability, Cornell Lab of Ornithology, National Audubon Society, American Bird Conservancy	Short
3.2 Adopt an ordinance requiring municipal-owned properties to participate in Lights Out Indy.	No Cost	City-County Council	Short
3.3 Partner with the Amos Butler Audubon Society (ABAS) to expand the Lights Out Indy program through funding or administrative assistance. Consider making the program an official city program, or a joint venture between the City of Indianapolis and ABAS.	Varies Depending on Approach and Resourced Needed	Office of Sustainability, Amos Butler Audubon Society	Long
3.4 Coordinate with the Amos Butler Audubon Society to develop and adopt bird-safe building standards for consideration in the issuance of development permits. The American Bird Conservancy’s Model Bird-Friendly Building Guidelines may serve as a starting point for discussion.	No Cost	Department of Metropolitan Development, Amos Butler Audubon Society, Office of Sustainability	Long



A great-horned owl at the North Mudflats in Eagle Creek Park. Photo by Ryan Sanderson from the Macaulay Library.

Category 4: Education and Engagement

Recommendation	Estimated Cost	Responsible Parties	Timeframe
4.1 Recognize and celebrate World Migratory Bird Day by hosting special events at Indianapolis parks.	Minimal Cost Depending on Desired Programming	Indy Parks and Recreation	Short
4.2 Encourage homeowners, businesses, schools, and churches to participate in the Indiana Wildlife Federation’s Certified Wildlife Habitat program to create thriving greenspaces for Hoosier wildlife. This can be achieved through a webpage or social media post(s).	No Cost	Office of Sustainability, Indiana Wildlife Federation	Short
4.3 Bring back the Bird Indy program to support the enjoyment of birds in parks and greenspaces across Indianapolis. Update and restore the Bird Indy page on the city’s website to help residents find birding sites near them.	Little to No Cost for Website Maintenance	Office of Sustainability	Short
4.4 Use a Lighter, Quicker, Cheaper approach to enhance the visitor experience in Indy parks and encourage learning. For example, add signage educating visitors about native wildlife, create more opportunities to sit and watch birds, and/or recruit local artists to paint nature-inspired murals and sidewalk art.	Project- Dependent	Indy Parks and Recreation, Department of Public Works	Short
4.5 Hire a small unit of interpretive naturalists that can travel to different Indy parks, particularly those in underserved communities without access to a nature center or staff naturalists, to facilitate educational events and programs.	Salary + Benefits for Team of Naturalists (1-2 people)	Indy Parks and Recreation	Long

CHAPTER 07

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A trail along Eagle Creek Reservoir.
Photo by Genevieve Zircher.

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A building in downtown Indianapolis along the Cultural Trail. Photo by Genevieve Zircher.

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Back cover photo by Alex Lamoreaux from the Cornell Lab of Ornithology's Macaulay Library.

BIRD-FRIENDLY INDIANAPOLIS GUIDE



Genevieve Zircher

Candidate for Master of Urban and Regional Planning
R. Wayne Estopinal College of Architecture and Planning
Ball State University