



# Urban Conservation Treaty for Migratory Birds V2



*Urban Bird Treaty* —  
A program working with cities  
and partners to conserve  
migratory birds  
through education, hazard  
reductions, citizen science,  
conservation actions, and  
conservation and habitat  
improvement strategies  
in urban/suburban areas



*The U.S. Fish and Wildlife  
Service alone cannot achieve the  
conservation of migratory birds —  
it will take the collective and  
coordinated efforts of  
partner organizations and  
citizens to do this.  
Birds are everywhere and we all have a  
responsibility to act on their behalf.*





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# Introduction to the Urban Bird Treaty program

The Urban Conservation Treaty for Migratory Birds (Urban Bird Treaty) program was created to help municipal governments conserve birds that live and nest in or overwinter or migrate through their cities. Launched in 1999, the first treaty was signed with New Orleans, and the second treaty was signed with Chicago. The treaties are a partnership agreement between a U.S. city and the U.S. Fish and Wildlife Service (Service) to conserve migratory birds through education, habitat improvement and bird conservation actions.

Designed to increase citizen awareness and understanding of the importance of bird conservation through partnerships between the Service and municipal governments, other agencies, and non-government organizations, the Urban Bird Treaty challenge grant will help finance education and outreach projects with a focus on the migratory bird protection and conservation as well as help with the creation and restoration of habitats within the urban/suburban area.

The Urban Bird Treaty program is dedicated to conserving birds in or passing through our cities. Each of us makes decisions in our daily lives that have the potential to either help or harm wildlife. In the case of birds, it can be something as simple as keeping pet cats inside, turning off the lights of a high-rise office building at night, buying shade-grown coffee, and being sure to choose bird-friendly native plants for a backyard or schoolyard garden. Cities can become effective sanctuaries for birds and other wildlife, with an environmentally aware citizenry dedicated to conserving and enhancing natural resources. Urban Bird Treaties can help cities enhance the livability for the migratory birds that nest, overwinter, or pass through municipal and urban/suburban neighborhoods. This is not only good for the birds, but also for the quality of life of people living in and visiting our cities.



## An Urban Conservation Treaty for Migratory Birds

The Urban Conservation Treaty for Migratory Birds (Urban Bird Treaty) is a unique, collaborative effort between U.S. Fish and Wildlife Service (Service) and participating U.S. cities, bringing together private citizens, Federal, State, and municipal agencies, and non-governmental organizations to conserve birds through a variety of actions including; education, conservation, and habitat improvement.

Urban Bird Treaty Cities, in addition to working to conserve, protect and restore and enhance habitat, reduce bird hazards, and educate urban residents on the importance of migratory birds, cities and their partners will promote outdoor bird-related experiences, foster environmental education with a focus on birds, and build natural resource career development opportunities when possible. Partners work to increase awareness of the value of migratory birds



and their habitats, especially for their intrinsic, ecological, recreational, and economic significance.

The goals of the Urban Bird Treaty program may overlap and one or more will be a natural part of and complement another goal. Each of these

program goals are listed separately as goal components. However, success of the activities that do the most to conserve native birds, and to emphasize bird conservation depends on a coordinated approach that considers and addresses multiple issues.





The emphasis placed on each area is up to each city. For example, fostering education and increasing awareness of the value of birds that includes an International Migratory Bird Day festival or fair and projects designed to get students involved in creating habitats at school or local businesses meets several of the Urban Bird Treaty goals.

Urban areas are critical for migrating birds. Large concentrations of birds migrate along four major flyways or routes (Atlantic, Pacific, Mississippi, and Central) on which many large urban centers have developed. Important migratory bird habitat is often found within these metropolitan areas. Habitat refers to those areas that birds require for feeding, nesting, roosting, resting, and protection from predators. With an environmentally aware citizenry dedicated to conserving and enhancing their natural resources, cities can be sanctuaries for migratory birds and other wildlife.

For example, Philadelphia (an Urban Bird Treaty City) is positioned along the Atlantic Flyway at the intersection of numerous migration routes, making it a particularly important city in terms of the vast number of migrants passing through and the need to ensure the availability of habitat where birds can quickly restore depleted energy resources. Fairmount Park in Philadelphia is one stopover site that fills a critical role in successful bird migration. John Heinz National Wildlife Refuge, an urban wildlife refuge, is home to a pair of nesting Bald Eagles.

Nesting Bald Eagles at urban John Heinz National Wildlife Refuge near Philadelphia.



Photo: Bill Buchan USFWS



## The Importance of Birds

For the vast majority of people, birds represent their most frequent contact with wildlife. Birds are a valuable resource, contributing aesthetically, culturally, scientifically, and economically to America's citizens. Birds are integral parts of our landscapes, providing important, sometimes irreplaceable functions. Birds pollinate plants, disperse seeds, are critical links in the food web, and play significant roles in insect pest control.

- Birds are considered indicators of the health of our environment.
- Bird populations can provide an indication of healthy or unhealthy changes in the nation's habitats and natural resources.
- The health of bird populations is linked to the quality of life for citizens of the United States.
- Healthy habitats are good for birds and other wildlife and therefore good for people.

The level of bird-related recreation is also a strong indicator of the value of birds to society. Nature-based recreation is the fastest growing segment of the tourism industry. Almost 48 million Americans watch birds. Birders spend hundreds of millions of dollars per year feeding birds, purchasing birdwatching equipment, and traveling in pursuit of birds. Recreational use on national wildlife refuges generated almost \$1.7 billion in total economic activity during fiscal year 2006, according to a report released by the U.S. Fish and Wildlife Service. The report, titled *Banking on Nature 2006: The Economic Benefits to Local Communities of National Wildlife Refuge Visitation* was compiled by Service economists.



## Urban Bird Treaty Goals

- **Protect, restore, and enhance urban/suburban habitats for birds**
- **Reduce hazards to birds**
- **Educate and engage citizens in monitoring, caring about, and advocating for birds and their conservation**
- **Foster youth environmental education with a focus on birds**
- **Manage invasive species to benefit and protect birds**
- **Increase awareness of the value of migratory birds and their habitats, especially for their intrinsic, ecological, recreational, and economic significance**

Almost 48 million Americans watch birds. Birders spend hundreds of millions of dollars per year feeding birds, purchasing birdwatching equipment, and traveling in pursuit of birds.



Photo: Alicia F. King



## Habitat Creation, Protection and Restoration

The Urban Bird Treaty city program will work to develop avian habitat enhancement plan that includes the creation, restoration, protection of avian habitat projects. Cities and their partners will work to support programs that build bird friendly habitats in backyards, city businesses, city parks and utilities, schools, and private offices.

The city and their partners have or are developing a park system with habitat suitable for migratory and native birds.

The city and their partners will work with organizations such as National Wildlife Federation to establish schoolyard habitats.

The city and their partners will work to educate citizens about creating backyard/office habitats for birds.

The city and their partners will work to develop educational materials and interpretive signs in areas designated as places for viewing as well as for providing habitat for resident or migratory birds.

The city and its partners will provide information on bird-friendly plantings and/or develop demonstration areas where such plantings can be seen.

The single most important reason for population declines in migratory birds is loss of habitat. For this reason, a major component of the Urban Bird Treaty is habitat creation, protection, and restoration for wild birds in the urban and suburban setting. Habitat refers to those areas that birds require for feeding, nesting, roosting, resting, and protection from predators.



Although urban development often results in extensive modification or destruction of natural habitat, opportunities can be identified to create, protect, restore and manage habitat for migratory birds. Bird habitat projects may be designed to provide food, water and shelter for nesting birds, resting habitat for birds during migration, and to create watchable wildlife opportunities. Habitat projects may also be created or enhanced to provide habitat for endangered species, Species of Conservation Concern\*, or species listed on National State Heritage Lists.

Examples of Habitat projects include:

Plant native trees, shrubs and perennial flowers as well as native grasses in backyards by homeowners and business owners.

Plant native shelter or food-source vegetation for birds along boulevards, parkways, and vacant lots.

Revise city park management plans to incorporate the needs of migratory birds.

Acquire or protecting natural areas or other unprotected open space through easements.

Enlarge the extent of an existing park or habitat area.

Provide habitat connections between parks and other habitat areas. Connections allow birds and other wildlife to move more safely among sites.

\*Bird species considered for inclusion on the Birds of Conservation Concern can be found at [www.fws.gov/migratorybirds/](http://www.fws.gov/migratorybirds/)

Wood Thrush USFWS





## Habitat Creation, Protection and Restoration—Resources

**Audubon at Home** — A National Audubon Society program, Audubon at Home hopes to help each of us take an active role in making our communities healthier. From reducing the use of pesticides to restoring natural habitats, Audubon At Home will provide information and inspiration bringing the conservation experience and expertise of Audubon into homes and communities. Audubon at Home's website contains valuable data on the effects of pesticides on birds, and simple ways that homeowners can rethink their lawns to reduce pesticide use and increase backyard biodiversity. Web: [www.audubon.org/bird/at\\_home/index.html](http://www.audubon.org/bird/at_home/index.html).

**Backyard Wildlife Habitat Programs** — The National Wildlife Federation (NWF) sponsors several programs including Backyard, Schoolyard and Workplace habitats as well as an environmental club for kids six to thirteen, citizen workshops, college campus greening and more. NWF encourages everyone - homeowner, teacher, community leader - to plan their landscape with the needs of wildlife in mind. Birds, butterflies, even insects might stop for a visit at this wonderful green space as they pass through the city. The National Wildlife Federation has encouraged individuals and communities to create and conserve wildlife habitat since 1973, when the Backyard Wildlife Habitat™ program (now called the Certified Wildlife Habitat™ program) began.



## Schoolyard Habitat -

**National Wildlife Federation Schoolyard Habitat program**—To help reconnect today's children to the outdoors, the National Wildlife Federation assists schools in developing outdoor classrooms called Schoolyard Habitats®, where educators and students learn how to attract and support local wildlife. These wildlife habitats become places where students not only learn about wildlife species and ecosystems, but also outdoor classrooms where they hone their academic skills and nurture their innate curiosity and creativity.

Schoolyard Habitats® is a part of the National Wildlife Federation's Be Out There™ initiative, which aims to inspire families across America to open the door and get outside.

[www.nwf.org/habitats](http://www.nwf.org/habitats).

**U.S. Fish and Wildlife Service Schoolyard Habitats**—The Schoolyard Habitats program helps teachers and students create wildlife habitat on school grounds. Habitat is the collective term for the food, water, shelter and nursery areas that all wildlife needs to survive. The loss of habitat is one of the greatest threats facing wildlife today.



The U.S. Fish and Wildlife Service provides and coordinates with other agencies to give technical assistance and project guidance; provides teacher training; develops written resources; and works with the state Departments of Education on incorporating habitat issues into new school construction and renovation projects.

Schoolyard Habitats® is a registered trademark of the U.S. Fish and Wildlife Service, Chesapeake Office. [www.fws.gov/chesapeakebay/schoolyd.htm](http://www.fws.gov/chesapeakebay/schoolyd.htm)





## Habitat Creation, Protection and Restoration—Resources

**Plant Conservation Initiative** — The Plant Conservation Alliance is a consortium of ten federal government Member agencies and over 145 non-federal Cooperators representing various disciplines within the conservation field: biologists, botanists, habitat preservationists, horticulturists, resources management consultants, soil scientists, special interest clubs, non-profit organizations, concerned citizens, nature lovers, and gardeners. PCA Members and Cooperators work collectively to solve the problems of native plant extinction and native habitat restoration, ensuring the preservation of our ecosystem. Each year, PCA awards thousands of dollars for on-the-ground conservation and restoration projects through a matching funds grant program administered by the National Fish and Wildlife Foundation.

[www.nps.gov.gov/plants/grant.htm](http://www.nps.gov.gov/plants/grant.htm)

**Urban Habitats** — Urban Habitats is an open-access electronic journal that focuses on current research on the biology of urban areas. Papers cover a range of related subject areas, including urban botany, conservation biology, wildlife and vegetation management in urban areas, urban ecology, restoration of urban habitats, landscape ecology and urban design, urban soils, bio-planning in metropolitan regions, and the natural history of cities around the world.

Articles include: Evaluating Urban Wetland Restorations: Case Studies for Assessing Connectivity and Function and Birds in the Urban Environment: Nesting Success and Life-History Attributes of Bird Communities Along an Urbanization Gradient.

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

Peregrine Falcons successfully nest on city buildings across the United States.

Photo Craig Koppie USFWS



**Community Habitats** —The National Wildlife Federation can help you certify your community as a Community Wildlife Habitat™. A Community Wildlife Habitat is a community that provides habitat for wildlife throughout the community--in individual backyards, on school grounds and in public areas such as parks, community gardens, places of worship and businesses. A Community Wildlife Habitat is a place where the residents make it a priority to provide habitat for wildlife by providing the four basic elements that all wildlife need: food, water, cover and places to raise young.

[www.nwf.org/Get-Outside/Outdoor-Activities/Garden-for-Wildlife/Community-Habitats.aspx](http://www.nwf.org/Get-Outside/Outdoor-Activities/Garden-for-Wildlife/Community-Habitats.aspx)

**The Urban Bird Corridor**—The Green Center's Urban Bird Corridor (UBC) is a narrow stretch of public land approximately 1500 feet long and 30 feet wide that serves as a critical connection between the Brittany Woods Prairie/Wetland Complex and Ruth Park Woods. The UBC provides important shelter, food, and nesting grounds for over 100 species of resident and migratory birds as well as other animals.

[www.thegreencenter.org/outdoor\\_spaces/urban\\_bird\\_corridor.aspx](http://www.thegreencenter.org/outdoor_spaces/urban_bird_corridor.aspx)

**Urban and Community Forestry** — This USDA Forest Service program helps State forestry agencies, local and tribal governments, and the private sector improve natural resource management of trees and forests in urban areas and community settings.

[www.fs.fed.us/spf/coop/ucf\\_general.htm](http://www.fs.fed.us/spf/coop/ucf_general.htm)

Urban Bird Corridor in St. Louis,  
Missouri.

Photo USFWS





## Reduce Hazards to Birds

The Urban Bird Treaty city program must create awareness of hazards to birds (buildings, windows, towers, powerlines, cats, pesticides, etc.) and work to address the reduction of these hazards; this can include making windows safe in home and office buildings and creating lights out program in tall city buildings.

The city and their partners have or will develop an educational program to control free-roaming cats and/or actively publicize the American Bird Conservancy “Cats Indoors!” program.

The city and their partners will provide easy-to-obtain information to property owners (including city buildings) regarding protecting birds from window-strikes.

The city and their partners will work to identify and work to reduce high impact buildings and create a lights out programs to ensure city buildings reduce hazards to migratory birds.

The city and their partners will identify and work to reduce other hazards such as pesticide use, to migratory, overwintering, and residential birds.

The city and their partners must monitor avian mortality at tall buildings and evaluate whether “lights out” programs reduce this hazard.

Migration exposes birds to many natural hazards, but the degree of human-caused mortality incurred at artificial objects or by human-introduced contaminants or from non-native predators has a devastating cumulative impact on populations of migratory birds.



U.S. Fish and Wildlife Service Urban Bird Treaty Coordinator collects birds in DC for the DC Lights Out program.

Combine mortality due to hazards with mortality that occurs due to degradation of breeding, stopover, and wintering habitats, and the outlook can be bleak for many migratory species. The good news is that through the hazard reduction component of the Urban Conservation Treaty for Migratory Birds, cities can be made safer for all birds, migratory and resident.

**Communication Towers** - Some 350 species of migratory songbirds have been documented to strike communication towers (predominantly radio, television, cellular, and microwave), killing an estimated four-to-five million birds per year. While we don't know what about towers attracts and kills birds and what can be done to reduce or ideally eliminate this problem, a nationwide research effort is underway. In the interim, the Service is recommending that companies proposing to site and construct communication towers follow a set of guidelines that contain the best measures presently available for avoiding fatal bird collisions. The Service believes that use of these voluntary guidelines will significantly reduce the loss of migratory birds at towers. To obtain a copy of the Service guidelines, contact the Division of Migratory Bird Management at 703-358-1714 or view it on the web at [www.migratorybirds.fws.com](http://www.migratorybirds.fws.com).

**Power lines/High voltage wires** - Electric power lines and the related power equipment, especially transformers, are estimated to kill tens of thousands of birds each year, especially birds of prey. Birds are injured or die from two causes: wire strikes and electrocutions. The electric utility provider in your city can employ inexpensive bird deterrent and/or electrocution-prevention devices on the offending equipment.





## Reduce Hazards to Birds

**Lighted Structures and Windows** - A large proportion of migrating birds affected by human-built structures are songbirds, apparently because of their propensity to migrate at night, their low flight altitudes, and their tendency to be trapped and disoriented by artificial light, making them vulnerable to collisions with human-built structures and windows. These collisions result in the mortality of millions of birds each year in North America. These collisions normally occur when lights are left on in rooms or atop tall buildings at night. Even the windows in single story buildings kill birds. Lights in these buildings at night make it more difficult for songbirds to see as they fly and may actually serve as an attraction especially on foggy nights during spring and fall migrations.

According to the Fatal Light Awareness Program (FLAP), a single tall building in Chicago checked daily during spring and fall migration caused an average of 1,478 bird deaths annually and over a period of 14 consecutive years, the cumulative kill amounted to 20,697 birds.

A single tall building in Chicago checked daily during spring and fall migration caused an average of 1,478 bird deaths annually.

Photo USFWS



**Cats** - Cats, including both house and feral cats, are non-native predators of birds and can cause excessive mortality in local bird populations. Scientists estimate that cats kill hundreds of millions of wild birds each year and three times as many small mammals! Wildlife in the Western Hemisphere did not evolve in the presence of a small, abundant predator like the domestic cat, and thus did not develop defenses against them. Cats were introduced to North America by European immigrants only a few hundred years ago. Once caught by a cat, few birds survive, even if they appear to have escaped. Infection from the cat's teeth or claws or the stress of capture usually results in death.

**Open oil pits, industrial pits, or chemical spills** - Birds can be attracted to open oil or other industrial pits and are subject to getting trapped in these pits, potentially leading to death. Oil or other petroleum products can coat bird feathers and cause major health problems to the exposed birds. In addition, chemical spills in urban areas (e.g., anti-freeze) can attract birds and can lead to their death. Anti-freeze contains ethylene or propylene glycol, chemicals that are toxic to wildlife.



**Aquatic Trash** - Fishing line left around ponds, creeks and rivers in urban areas can entangle birds and result in mortality. Also, "pop tops" and plastic six-pack rings from beverage cans pose debilitating hazards to migratory birds. Birds can swallow the sharp "pop tops" or become entangled in the plastic rings. Encourage recreationists to place trash in proper receptacles and enlist local volunteers to conduct regular clean-ups of these popular areas for both birds and humans.



## Reduce Hazards to Birds

**Pesticides** - The use of pesticides can negatively impact the many natural resources, including fisheries resources, threatened and endangered species, migratory birds and their habitats. Pesticides include products, such as insect repellants, weed killers, disinfectants and swimming pool chemicals, which are designed to prevent, destroy, repel or reduce pests such as insects, mice and other animals, weeds, fungi, bacteria and viruses. Pesticides are used in nearly every home, business, farm, school, hospital and park in the United States and are found almost everywhere in our environment.

Pesticides have been shown to cause rapid death and debilitating effects to birds in urban areas. A 1992 study conservatively estimated that 65 million birds die per year from pesticide poisoning or effects. Annual mortality is probably in the hundreds of millions, but deaths are very difficult to document.

Most of the active ingredients known to be toxic to birds belong to one of three classes of chemicals: organochlorines, organophosphates and carbamates.

- Before using a pesticide, determine whether you actually have a problem that requires its use.
- If you must use a pesticide, use a low impact I types of pesticides like dormant oils, insecticidal soaps or repellents free of organic solvents.



**Insecticides** — this is the group of pesticides that injures and kills birds more than any other. People should be extremely cautious when using insecticides and should attempt to limit use of these to emergency situations only. At least 40-50 different insecticides (Organic-Phosphates and carbamate) are known to kill birds even when the label instructions and rates are followed.

**Herbicides/Fungicides** — these groups of pesticides are usually not considered acutely toxic to birds, but have been shown to cause endocrine and other internal system effects, which can impact reproduction and other normal functioning of birds.

**Rodenticides** — even though this group of pesticides is specifically used to kill rodents, they may have far-reaching effects on birds as well. Depending on how these pesticides are applied, birds may come in contact with them in at least two ways. Rodenticide baits may be improperly left out where other animals such as birds may ingest them. In addition, hawks, owls, and other predatory birds may come in contact with these pesticides by consuming poisoned rodents. The major group of rodenticides is known as anti-coagulants, which cause massive internal bleeding in rodents and in birds as well.





## Reduce Hazards to Birds—Resources

**Fatal Light Awareness Program (FLAP)** — FLAP is a nonprofit organization founded in 1993. It works toward two goals: encourage building owners to turn off lights in outer building offices at night during spring and fall songbird migrations; and work with architects, designers, and engineers to take into account lighting impacts on birds when building or retrofitting structures.

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

**Lights Out Chicago**— The Lights Out program encourages the owners and managers of tall buildings to turn off or dim their decorative lights. The Chicago Audubon Society manages the Lights Out program along with the Building Owners and Managers Association, the National Audubon Society, and the City of Chicago.

Since 1995, Chicago’s tall buildings in the Loop have served as an example to the nation as they save 10,000 birds’ lives annually by participating in the Lights Out program. The key is to reduce the total light emitted from the building from 11pm until sunrise during migratory seasons (mid-March to early June and late August to mid-November). In addition to saving migratory birds, building owners have realized direct benefits, including decreased energy and maintenance costs. Extinguish or dim exterior or decorative lighting on any multi-story building. This includes spotlights, logos, lighted clock faces, greenhouses, antennae lighting, etc.

- Extinguish or dim the maximum amount of lobby lighting possible.
- Minimize the lights in perimeter rooms at all levels of the building.

[http://www.cityofchicago.org/city/en/depts/dae/supp\\_info/lights\\_out\\_chicago.html](http://www.cityofchicago.org/city/en/depts/dae/supp_info/lights_out_chicago.html)

<http://www.lightsout.audubon.org/>

<http://www.chicagoaudubon.org/>

**Cats Indoors Campaign** — American Bird Conservancy's Cats Indoors! Campaign seeks to inform cat owners, decision makers, and the general public that free-roaming cats are a significant threat to birds and other wildlife, pose a threat to humans, and often live short, painful lives. The campaign is working to secure the humane removal of free-roaming cats from sensitive wildlife areas, and to persuade cat owners to keep their cats indoors.

<http://www.abcbirds.org/abcprograms/policy/cats/index.html>

**Environmental Protection Agency's Pesticide Program**— Many different insects and animals are pollinators -- for example ants, birds, bats, and of course bees. And many plants depend on them for pollination -- fruits and vegetables, but also grains, grasses, and even trees. Although it's easy to forget the importance of pollinators, it's critical that we help protect them from environmental risks. EPA's Pesticide Program is working with national and international partners to protect pollinators through regulatory, voluntary, and research programs. Using environmental fate data and exposure models, EPA scientists estimate exposure of different animals to pesticide residues in the environment.

<http://www.epa.gov/pesticides/ecosystem/index.htm>



## **Educate and Engage Citizens in Caring About and Advocating for Birds and Their Conservation**

The Urban Bird Treaty city program must engage citizens in hands-on activities to protect migratory birds and work with libraries, bird clubs, nature centers and area National Wildlife Refuges and other local Service offices to offer bird conservation presentations, fairs and activities.

The city will engage citizen scientists and wildlife professionals to monitor the status of urban/suburban bird populations and their responses to Urban Bird Treaty conservation efforts where appropriate.

The city and partners will work to educate citizens about the Urban Bird Treaty Program goals and actions associated with these goals.

The city and partners must use citizen scientists and wildlife professionals to monitor bird populations in host cities through programs like Christmas Bird Counts, the Great backyard Bird Count, eBird, and Project Feederwatch.

Examples of projects can include:

School participation in Project Feederwatch or the Great Backyard Bird Count.

Organizing festivals, informational fairs, or afterschool programs to help educate folks about birds and their conservation.

Newsletter articles about citizen involvement in neighborhood newsletter, websites, and official city communications.

From city streets to remote forests, citizen scientists make up the world's largest research teams, gathering data to better understand and conserve biological diversity. Citizen science is a partnership between the public and professional scientists who cooperate to conduct large-scale research.



## Educate and Engage Citizens — Resources

**Citizen Science Programs** - the following organizations can help with engaging citizens in citizen science and advocating for birds and their conservation.

**Cornell Lab of Ornithology** - Cornell Lab of Ornithology coordinates multiple projects for citizen scientists of all ages. Curricula and project kits are available in print and on the Internet . Monitoring projects include: eBird, Birdhouse Network, Great Backyard Bird Count, Golden-winged Warbler Atlas Project, Project Pigeon Watch, Project Feeder Watch, Classroom Feeder Watch, Autumn Hawk Watch, Birds in Forested Landscapes, and Celebrate Urban Birds.  
<http://birds.cornell.edu/citsci>.

**Partners In Flight (PIF)** — This is a coalition of federal, state and local government agencies, philanthropic foundations, professional organizations, conservation groups, industry, the academic community, and private individuals. PIF's goal is to focus resources on the improvement of monitoring and inventory, research, management, and education programs involving birds and their habitats.  
[www.partnersinflight.org](http://www.partnersinflight.org).

**Monitoring Programs**—The North American Breeding bird Survey, National Audubon Society's Christmas Bird Count, and the International Shorebird Survey are large scale census efforts designed to monitor bird populations over broad geographical and mostly rural areas. Smaller scale regional efforts also exist for national parks, national wildlife refuges, national forests, and many state and private landholdings. For information on the following programs .  
[www.pwrc.usgs.gov/birds/othbird.html](http://www.pwrc.usgs.gov/birds/othbird.html)

**Bird Banding Lab**— The North American Bird Banding Program is jointly administered by the United States Department of the Interior and the Canadian Wildlife Service . Their respective banding offices have similar functions and policies and use the same bands, reporting forms and data formats.  
[www.pwrc.usgs.gov/BBL/](http://www.pwrc.usgs.gov/BBL/)

## Foster Youth Environmental Education with a Focus on Birds

The Urban Bird Treaty city must work with schools in the community to develop programs or participate in one or more programs such as Flying WILD, Jr. Duck Stamp, Celebrate Urban Birds and Citizen Science programs to help ensure that the nation's students are knowledgeable about the conservation needs of migratory and other birds.

The Urban Bird Treaty city must link schools to other organizations with information on backyard habitat programs such as Audubon at Home or the National Wildlife Federation.

The Urban Bird Treaty city must work with youth organization partners to create and build career awareness and career development opportunities for young people through at least one annual job fair with businesses, and schools at all education levels.

The Urban Bird Treaty city must create or have an education and outreach aspect to teach city residents the benefits of native plant and animal species. An education and outreach project may work to promote the reduction of hazards or habitat conservation by encouraging office workers to turn out their lights at night, or landowners to provide the proper food, water and shelter for birds in their backyards, or advising city land managers on the use of native plants. It may also involve teaching bird-focused curricula or constructing schoolyard habitat sites. A daily dose of the outdoors improves children's physical, mental and emotional well-being. The benefits of outdoor play are real: healthier kids with a life-long appreciation of wildlife and nature.



## Foster Youth Environmental Education with a Focus on Birds—Resources

The U.S. Fish and Wildlife Service offers many opportunities to connect children with nature. To learn how we can help engage your students in nature, visit the Service's Office Directory ([www.fws.gov/offices/](http://www.fws.gov/offices/)) and contact an office near you.

**U.S. Fish and Wildlife Service Education links** - Links to numerous educational exhibits dealing with wildlife history, biology, and other resource related issues and art. Also includes Boy Scout and Girl Scout recognition certificates, curriculum resources and activities, community service projects and professional development opportunities. [www.fws.gov/educators/educators.html](http://www.fws.gov/educators/educators.html)

**Student career opportunities** with the U.S. Fish and Wildlife Service include: Youth Conservation Corps (YCC), Student Conservation Association (SCA), Student Temporary Experience Program, Student Career Experience Program, Student Education Employment Program and internships. For more information, please contact your servicing Human Resources Office or the Department of the Interior, Office of Youth and Natural Resources, at (202) 208-4417.

**Youth in the Great Outdoors Initiative**— The U.S. Department of the Interior manages America's backyard, and it's our job to make sure that backyard is available for all young people to enjoy. To this end the Youth in the Great Outdoors Initiative will employ, educate, and engage young people from all backgrounds in exploring, connecting with and preserving America's natural and cultural heritage. Interior's recreation programs take young people into the great outdoors where they can enjoy the natural world while hiking, fishing, hunting, and observing wildlife. Through these experiences young people have the opportunity to build relationships with their families, peers and communities. Parks, refuges and other public lands provide recreational opportunities to over six million youth throughout the year. [www.doi.gov/whatwedo/youth/](http://www.doi.gov/whatwedo/youth/)



## Foster Youth Environmental Education with a Focus on Birds—Resources

**Lets Go Outside**—a connection to a free, nationwide, educational resource that can connect children with nature, as well encourage students to consider a Natural resources career.

[www.fws.gov/letsgooutside/](http://www.fws.gov/letsgooutside/)

**Flying WILD**—Flying WILD, a program of the Council for Environmental Education, introduces students to bird conservation through standards-based classroom activities and environmental stewardship projects. Flying WILD encourages schools to work closely with conservation organizations, community groups, and businesses involved with birds to implement school bird festivals and bird conservation projects.

[www.flyingwild.org/involved.htm](http://www.flyingwild.org/involved.htm)

**Junior Duck Stamp** - Annual Junior Duck Contest information, rules, entry forms (English/Spanish), frequently asked questions and art tour information. Program connects children with nature through science and art.

Curriculum Guide and educational resources for Junior Duck Stamp Program available.

[www.fws.gov/juniorduck/](http://www.fws.gov/juniorduck/) and <http://www.fws.gov/>

**The Children & Nature Network (C&NN)** - was created to encourage and support the people and organizations working nationally and internationally to reconnect children with nature. The network provides a critical link between researchers and individuals, educators and organizations dedicated to children's health and well-being.

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

### **Celebrate Urban Birds Kit**

The Celebration Kit is a bilingual (English and Spanish) set of materials that includes an introductory letter with 16 drawings of urban birds; a colorful urban birds poster with information about birds, urban greening, and threats to birds in cities; a silhouette poster featuring 16 species of urban birds and cool facts about them; a simple data form for recording observations and return envelope; and a packet of sunflower seeds to plant in pots and gardens. The beauty of "Celebrate Urban Birds!" is that the level of participation is flexible and there's lots of room for creativity. Involvement can be as simple as providing a table with educational materials. urban birds and conservation concerns.  
[www.birds.cornell.edu/celebration/](http://www.birds.cornell.edu/celebration/)

**Urban Bird Sounds Project**—A project by and for students that teaches students to recognize bird sounds in the city.  
[www.urbanbirdsounds.org/Site/Urban\\_Bird\\_Sounds\\_Project.html](http://www.urbanbirdsounds.org/Site/Urban_Bird_Sounds_Project.html)

**Journey North**—A global study of wildlife migration and seasonal change. This website includes lesson plans and background materials for classes to enter their own data, track and learn about migratory species.  
[www.learner.org/jnorth](http://www.learner.org/jnorth)

**Neighborhood Nestwatch** - The Smithsonian's Neighborhood Nestwatch program provides an opportunity to be a biologist in your own backyard. Participants learn about birds and help scientists solve critical questions regarding the survival of backyard bird populations.  
[//nationalzoo.si.edu/scbi/migratorybirds/research//bird\\_nestwatch/](http://nationalzoo.si.edu/scbi/migratorybirds/research//bird_nestwatch/)

## Foster Youth Environmental Education with a Focus on Birds—Resources

**The Fledging Birders Institute**— The Fledging Birders Institute is a non-profit environmental education organization with the dual mission of enhancing the healthy development of our youth with the profound benefits of birdwatching AND promoting public awareness of avian diversity and factors which threaten it thereby fostering a societal bird conservation ethic. Schoolyard Birding Challenge.

The **Schoolyard Birding Challenge** (SBC) is a monthly bird watching contest open to students in all public, private, and home schools in North America. Student participants in the SBC will work together to observe, identify, and record various bird species found on their school grounds.

SBC's main objective is to get more young people outside and exploring nature via bird watching. While this popular hobby provides life long enjoyment for enthusiasts, it also holds benefits for many people, especially children. Developmental benefits of birding include: exercising observation skills - both visual and auditory, increased ability to focus on tasks, improving communication skills, behavioral and impulse control, bolstering self-esteem and confidence, provides relaxation and stress relief opportunities, positive peer socialization activities, reinforcing various academic concepts. [www.fledgingbirders.org/challenge.html](http://www.fledgingbirders.org/challenge.html)





**Audubon Adventures**—Audubon Adventures has two programs for educators. One – in-school is designed for 3rd thru 5th graders. For a nominal fee, teachers can obtain kits to use with their students throughout the school year. Instructional content is aligned with national standards for Social Studies, Science, and Language Arts.

[www.audubon.org/educate/aa/in-school.html](http://www.audubon.org/educate/aa/in-school.html)

The second program, entitled Audubon Adventures – After School, is designed for children ages 11 to 14. Audubon Adventures – After School provides a unique opportunity to engage your community’s youngsters in a healthy, esteem building, social, fun, experience with peers and which has positive outcomes for the environment.

[www.audubon.org/educate/aa/afterschool.html](http://www.audubon.org/educate/aa/afterschool.html)

**Earth Force** — Earth Force Earth Force engages young people as active citizens who improve the environment and their communities now and in the future. Through Earth Force, youth discover and implement lasting solutions to environmental issues in their community. In the process they develop life-long habits of active citizenship and environmental stewardship. Educators turn to Earth Force for innovative tools to engage young people in community problem solving. Earth Force is youth-driven with a national Youth Advisory Board (YAB) made up of 15 members, ages 12-17. The YAB helps develop and implement Earth Force programs.

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



## Foster Youth Environmental Education with a Focus on Birds—Resources

**National Wildlife Federation Schoolyard Habitats**—To help reconnect today's children to the outdoors, the National Wildlife Federation assists schools in developing outdoor classrooms called Schoolyard Habitats®, where educators and students learn how to attract and support local wildlife. These wildlife habitats become places where students not only learn about wildlife species and ecosystems, but also outdoor classrooms where they hone their academic skills and nurture their innate curiosity and creativity.

<http://www.nwf.org/Get-Outside/Outdoor-Activities/Garden-for-Wildlife/Schoolyard-Habitats.aspx>

**Shorebird Sister Schools Program** — The Shorebird Sister Schools Program is a science-based environmental education program designed to engage participants in learning about shorebirds and their conservation. The program was created to support a multi-national effort to protect shorebird populations and their habitats along all the major flyways. The Shorebird Sister Schools Program (SSSP) encourages public participation in the conservation of shorebirds and their habitats by connecting people along flyways and increasing their awareness and knowledge of local natural resources to inspire community conservation. The Shorebird Theme Easily Integrates Many Subjects and the Curriculum is Correlated with National Education Standards.

[www.fws.gov/sssp/](http://www.fws.gov/sssp/)

**Let's Move Outside**—The U.S. Departments of the Interior (DOI) and Agriculture (USDA) are leading a coordinated effort to get kids moving outside. Together, these agencies oversee more than one-fifth of the nation's land - including millions of acres of National forests, parks and trails.

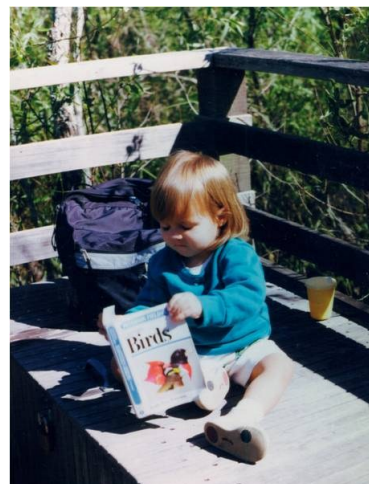
<http://www.letsmove.gov/letsmoveoutside.php>

**Bridging the Americas/Unidos por las Aves** - Bridging the Americas/Unidos por las Aves is a cross-cultural environmental education program that links elementary school classes in Maryland, Virginia and Washington, DC with classes in Latin America and the Caribbean through an exchange of art work and letters that focus on Neotropical migratory birds.

[http://nationalzoo.si.edu/scbi/MigratoryBirds/Education/Teacher\\_Resources/Bridging\\_the\\_americas/default.cfm](http://nationalzoo.si.edu/scbi/MigratoryBirds/Education/Teacher_Resources/Bridging_the_americas/default.cfm)

**4-H** — The youth education branch of the Cooperative Extension Service, a program of the United States Department of Agriculture. Each state and each county has access to a County Extension office for both youth and adult programs. 4-H enables youth to have fun, meet new people, learn new lifeskills, build self-confidence, learn responsibility, and set and achieve goals. Youth learn by doing, and receive an award for projects. From Wind Power to Workforce Readiness, youth activity guides are filled with engaging experiences that cultivate the skills that youth need for everyday living as they gain knowledge about subjects that interest them.

State 4-H programs within the Cooperative Extension System, 4-H National Headquarters at USDA, and National 4-H Council provide leadership for the development of National 4-H Curriculum. This partnership provides the knowledge, resources, and management necessary to develop and market quality youth curriculum.  
[www.4-H.org](http://www.4-H.org).





## Manage Invasive Species

The Urban Bird Treaty city must create a program that manages invasive and exotic plant and animal life to protect the migratory bird population.

The Urban Bird Treaty city must offer the public information on control and removal of invasive species including cats.

The Urban Bird Treaty city must develop a management plan with specific targets to reduce invasive species.

Create a native plant program to encourage citizens to plant native plants.

### **Examples of non-native, and invasive species management include:**

Control invasive or nuisance species to create desired habitat conditions to benefit birds.

Targeted removal of non-native and invasive species from municipal lands.

Revise city landscaping practices to eliminate the use of non-native and invasive species.

Educate the public about what is a native species versus, ornamental and non-native.

Develop a list of nurseries that sell native plants and "bird friendly" plants that provide shelter and food, and encourage additional nurseries to stock and sell these plants.

Re-vegetate areas to lessen their attractiveness to nuisance animal species such as resident populations of Canada Goose.

Control feral dog and cat populations through policy and public education.

Conduct public education campaigns to reduce the feeding of geese, pigeons, starlings, and English sparrows.

## **Non-Native, Invasive, and Nuisance Species Management**

As this country has grown, native plant and animal communities have been adversely impacted by both development, and purposeful and accidental introduction of non-native species. In recognition of the need to address this loss of diversity, each State has established an Invasive Species Council responsible for creating State Invasive Species Management Plan. As a component of an Urban Bird Treaty program, projects that address non-native, invasive and nuisance species can be a vital part of the state effort to restore biological diversity.

Non-native species are those plant or animal species that were not present at the time of European settlement. Because of very aggressive growth habits many non-native species become invasive and out-compete the native plants. So not only are the native plants at risk, the native wildlife species that depend on native plants, are as well. This can be manifested as direct loss of food or loss of habitat as the non-native species out-compete natives. Thus, the focuses on restoration of locally native plant communities that provide food, roosting, or nesting habitat for birds.



Purple Loosestrife is an exotic species of Eurasian origin and can overpower native plants.

Photo USFWS

## Manage Invasive Species - Resources

Invasive species are organisms that are introduced into a non-native ecosystem and which cause, or are likely to cause, harm to the economy, environment or human health. It is important to note that when we talk about a species being invasive, we are talking about environmental boundaries, not political ones. In addition to the many invasive species from outside the U.S., there are many species from within the U.S. that are invasive in other parts of the country.

The nuisance designation is one of human perception, therefore any species, even a native species, could become a nuisance. Generally used to refer to animals, a species is a "nuisance" as a result of the animal's population density - large numbers and associated negative human-wildlife interactions. Familiar "nuisance" animal species include free-roaming dogs, cats, and raccoons, all of which can pose a threat to migratory populations. The densities of resident Canada Goose, starlings, House Sparrows, and pigeons frequently reach nuisance levels in urban areas.

Invasive species damage the lands and waters that native plants and animals need to survive. They hurt economies and threaten human well-being. The estimated damage from invasive species worldwide totals more than \$1.4 trillion – five percent of the global economy.

The U.S. Fish and Wildlife Service is the only agency of the U.S. Government whose primary responsibility is the conservation of the nation's fish, wildlife, and plants. Because of our responsibilities, the Service is very concerned about the impacts that invasive species are having across the Nation. Invasive plants and animals have many impacts on fish and wildlife resources. Invasive species degrade, change or displace native habitats and compete with our native wildlife and are thus harmful to our fish, wildlife and plant resources. General invasive species information, contacts, frequently asked questions, Fish and Wildlife Service activities, partnerships and grants and injurious wildlife information.

<http://www.fws.gov/invasives/>

The Nature Conservancy is working to prevent and control the spread of invasive species in all 50 states and across more than 30 countries around the world. Together with our partners we are focusing on prevention and early detection as the most effective strategies to combat invasive species.

<http://www.nature.org/initiatives/invasivespecies/>





## Increase Awareness of the Value of Migratory Birds and their Habitats

Create educational brochures, signs, and displays that help educate the general public about issues concerning migratory birds and cities.

The community adopts an official resolution and holds a celebration marking International Migratory Bird Day (IMBD), celebrated on the second Saturday in May.

Work with City tourism board or other such entity to promote outdoor wildlife and birdwatching.

Public awareness and concern are crucial components of migratory bird conservation. Citizens who are enthusiastic about birds, informed about threats, and empowered to become involved in addressing those threats, can make a tremendous contribution to maintaining healthy bird populations.

The economic benefit of birdwatchers and the benefits birds provide in insect and rodent control, plant pollination, and seed dispersal add value to sustaining birds and their habitats. The ecological value of birds as important elements within natural systems results in tangible benefits to people.

- Birds are considered indicators of the health of our environment.
- Bird populations can provide an indication of healthy or unhealthy changes in the nation's habitats and natural resources.
- The health of bird populations is linked to the quality of life for citizens of the United States.
- Habitats are good for birds and therefore good for people.

During 2006, 71 million U.S. residents, 31 percent of the U.S. population 16 years old and older, participated in wildlife-watching activities. The 2006 U.S. Fish and Wildlife Survey calculate that some 47.7 million Americans watch birds, up 18% from 2001. More than the number of people who play golf!

Recreational use on National Wildlife Refuges generated almost \$1.7 billion in total economic activity during fiscal year 2006, according to a report titled *Banking on Nature 2006: The Economic Benefits to Local Communities of National Wildlife Refuge Visitation* was compiled by Service economists. According to the study, nearly 35 million people visited National Wildlife Refuges in 2006, supporting almost 27,000 private sector jobs and producing about \$543 million in employment income. In addition, recreational spending on refuges generated nearly \$185.3 million in tax revenue at the local, county, state and federal level.

The level of bird-related recreation is also a strong indicator of the value of birds to society. Nature-based recreation is the fastest growing segment of the tourism industry. Birders spend hundreds of millions of dollars per year feeding birds, purchasing birdwatching equipment, and traveling in pursuit of birds.



## Increase Awareness of the Value of Migratory Birds and their Habitats.— Resources

**Environment for the Americas** (EFTA) is a non-profit organization that provides information and materials about birds, bird conservation, and bird education from Canada to South America. Our programs inspire people of all ages to get outdoors, learn about birds, and take part in their conservation. Bird educators, festival organizers, and birders find opportunities to connect ideas, information, and activities close to home or across borders. Known for our signature program, International Migratory Bird Day, we also have programs that connect people year-round.

**International Migratory Bird Day** (IMBD), the signature program of EFTA, is the only international education program that highlights and celebrates the migration of nearly 350 species of migratory birds between nesting habitats in North America and non-breeding grounds in Latin America, Mexico, and the Caribbean. Each year IMBD explores a different aspect of migratory birds and their conservation.

International Migratory Bird Day is an invitation to celebrate and support migratory bird conservation. Like any day of recognition, IMBD exists to focus attention on a valuable resource.

<http://www.birdday.org/>





## Conservation Partners

The following is a list of conservation partners that may be available to help you complete your plan to accomplish Urban Bird Treaty goals. The Service encourages partnerships with as many local, regional, national organizations, and individuals as possible. Treaty programs can be more successful through the involvement and resources of a broad base of partners. Please refer to each goal chapter for more specific information about potential partners to help accomplish specific goals.

Note: This list is not exhaustive. There may be other very good national and local conservation partners out there that may also provide valuable information and partnership opportunities

State of the Birds Reports — [www.stateofthebirds.org](http://www.stateofthebirds.org)

Specific to Urban Birds - [www.stateofthebirds.org/2009/habitats/urban-birds](http://www.stateofthebirds.org/2009/habitats/urban-birds)

American Birding Association — [www.americanbirding.org](http://www.americanbirding.org)

American Bird Conservancy — [www.abcbirds.org](http://www.abcbirds.org)

American Ornithologists Union — [www.aou.org](http://www.aou.org)

American Rivers — [www.amrivers.org](http://www.amrivers.org)

American Society of Landscape Architects — [www.asla.org](http://www.asla.org).

American Zoo and Aquarium Association — [www.aza.org](http://www.aza.org).

Captain Planet Foundation — [www.turner.com/cpf](http://www.turner.com/cpf).

Center of Conservation Research and Technology — [www.ccr.org](http://www.ccr.org).

Cornell Lab of Ornithology — 1-800-843-BIRD (2473) [www.ornith.cornell.edu](http://www.ornith.cornell.edu).

**Department of Interior —**

Bureau of Land Management [www.blm.gov](http://www.blm.gov)

National Park Service — [www.nps.gov](http://www.nps.gov)

Migratory Bird Management—[www.fws.gov](http://www.fws.gov).

Ducks Unlimited Inc. — [www.ducksunlimited.org](http://www.ducksunlimited.org)

The Humane Society of The United States — [www.hsus.org](http://www.hsus.org)

National Audubon Society — [www.audubon.org](http://www.audubon.org).

National Fish and Wildlife Foundation — [www.nfwf.org](http://www.nfwf.org)

National Wildlife Federation — [www.nwf.org](http://www.nwf.org).

The Nature Conservancy — [www.tnc.org](http://www.tnc.org).

Smithsonian Migratory Bird Center — National Zoological Park, Washington  
[www.natzoo.si.edu/smbc](http://www.natzoo.si.edu/smbc).

U.S. Department of Agriculture — Forest Service — [www.fs.fed.us/spf/coop/ucf\\_general.htm](http://www.fs.fed.us/spf/coop/ucf_general.htm).

U.S. Environmental Protection Agency — [www.epa.gov](http://www.epa.gov) or [www.epa.gov/epahome/programs.htm](http://www.epa.gov/epahome/programs.htm).

Wildlife Habitat Council — [www.wildlifehc.org](http://www.wildlifehc.org).



