



**SAFE North American Songbirds
Action Plan (August 2020- August 2023)**

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The 2020-2023 SAFE North American Songbirds (NAS) Action Plan was developed by the SAFE NAS Steering committee consisting of leaders from 12 AZA member institutions (Akron Zoological Park, Brevard Zoo, Columbus Zoo and Aquarium, Detroit Zoological Society, Fort Wayne Children's Zoo, North Carolina Aquarium on Roanoke Island, Riverbanks Zoo & Garden, Saint Louis Zoo, Smithsonian's National Zoo & Conservation Biology Institute, The Wilds, Toronto Zoo and Zoo Miami,) along with project partners and external advisors. The SAFE North American Songbird program invites and welcomes all interested zoos and aquariums to become program partners, funders and collaborators in our efforts to save and protect North American songbirds.

Program Goal

The goal of Saving Animals From Extinction North American Songbirds (SAFE NAS) is to reduce the threats to North American songbirds and secure sustainable wild populations of these species throughout their ranges. We will achieve measurable successes by harnessing the collective strengths of zoos, aquariums, and partners through supporting education and on-the-ground conservation activities on AZA facilities, in the community, and at state, national and provincial levels. The goal of this three-year action plan is to collect information, develop an awareness campaign for use by the AZA community, and implement conservation activities in 90% of our member organizations.

For this action plan, SAFE NAS focuses on three areas of native songbird conservation:

1. Reducing bird collisions with glass
2. Reducing free-roaming cat impacts on wildlife
3. Preserving, enhancing, and building native habitats

It also begins to address:

4. Reducing contaminants that affect North American songbirds
5. Promoting Bird Friendly coffee
6. Promoting and participating in citizen science
7. Reducing North American songbird trafficking

To create an effective campaign that truly increases behaviors beneficial for the conservation of North American songbirds, all zoos and aquariums participating in SAFE should have a unified approach to increasing specific behaviors in visitors. A complete behavior change model that addresses all of the relevant North American songbird conservation issues which could be mitigated, or even resolved, by visitors' changing behavior, will be an important tool in promoting how to implement this change with AZA visitors.

SAFE NAS will identify which favorable behaviors will have the highest impact on NAS conservation, then determine one tool for behavior change to use for each behavior identified as being the most desirable change aligned with a specific NAS conservation issue. Determining

the most effective tool will require assessing the types of behaviors, the types of audiences, how the behaviors will be promoted, and tracking the desired change. SAFE NAS will aim to summarize all these considerations into a single document to be shared with SAFE NAS partners in order to unify our approach of changing our visitors' behaviors for the benefit of SAFE NAS conservation.

Program Operating Structure

The operations of the SAFE NAS program are conducted by the Chairs, Steering Committee, Secretary, Treasurer, and general membership. While the structure will develop over time as the program grows, leadership roles and the list of participants for this 3-year action plan are listed below.

Chairs: The Chairs provide overall direction to the program, set up and lead program-wide working meetings, monitor program progress, inform and involve the AZA WCC Liaison, provide status reports to the program members and AZA and participate in working groups. They also manage the AZA SAFE NAS listserve. The Chairs appoint the program Secretary, Treasurer, and working group leads. Chairs monitor work and progress of each of the initiatives through monthly check in's with each Point of Contact, monthly Steering Committee calls.

Steering Committee: The Steering Committee consists of representatives from zoos and aquariums that served in the North American Songbird Working Group (NASWG) (an initiative of the AZA Passerine Taxon Advisory Group) when the conservation part of NASWG became the origin of the SAFE NAS program. Steering Committee members assist the Chairs in setting program direction, chair working groups, and provide regular updates to the SAFE NAS Chairs.

Secretary: The Secretary takes meeting minutes, distributes them to the appropriate program members, and posts them on the SAFE NAS listserve.

Treasurer: The Treasurer maintains and disperses funds acquired for the operation of the program and for meeting the objectives of the Action Plan. Budget oversight is provided by the program chairs who will provide an annual accounting report to the program membership.

Program Partners: Program partners are subject-matter experts on a variety of bird conservation initiatives who provide guidance to program members to ensure that program actions address current North American songbird conservation needs. They are invited to collaborate with the program in many aspects including participating in working groups, attending meetings, and providing relevant subject-related information. Anyone in the SAFE NAS program may suggest and work with a potential partner. With approval of the Chairs, the partner can become "official." Partners may come from government or non-government organizations, other AZA institutions, and the private sector.

Facility	Representative	Contact Information
Program Leaders		
Columbus Zoo and Aquarium	Dr. Mike Kreger, Co-Chair	614-724-3409, michael.kreger@columbuszoo.org
Smithsonian National Zoo & Conservation Biology Institute	Sara Hallager, Co-Chair	202-633-3088, hallagers@si.edu
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Treasurer		
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Steering Committee		
Akron Zoo	Shane Good	330-375-2550 x7268, s.good@akronzoo.org
Brevard Zoo	Michelle Smurl	321-254-9453, x217, msmurl@brevardzoo.org
Fort Wayne Children's Zoo	Dr. Joe Smith	260-515-0928, joe.smith@kidszoo.org
Lincoln Park Zoo	Matt Igleski	312-742-2460, MIgleski@lpzoo.org
Saint Louis Zoo	Anne Tieber	314-440-5203, Tieber@stlzoo.org
The Wilds	Dr. Stephen Spear	740-638-5030, sspear@thewilds.org
Toronto Zoo	Dr. Kevin Kerr	416-392-5962, kkerr@torontozoo.ca
Zoo Miami	Jim Dunster	305-251-0400 x5084965, James.Dunster@miamidade.gov

SAFE NAS Program Partners			
Facility	Contact person	Title	Contact information
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The Wilds	Dr. Stephen Spear	Director of Wildlife Ecology	740-638-5030, sspear@thewilds.org
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Zoo Miami	Jim Dunster	Curator of Birds	305-251-0400 x5084965, James.Dunster@miamidade.gov

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SAFE NAS Education Team

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North Carolina Aquarium at Pine Knoll Shores	Nicole Warren	Educator and Bird Trainer	252-247-4003 x 287, Nicole.Warren@ncaquariums.com
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Smithsonian National Zoo & Conservation Biology Institute	Sara Hallager	Curator of Birds	202-633-3088, hallagers@si.edu

Conservation Target

The North American songbird SAFE program includes 318 species of the order Passeriformes that spend part of their life cycle in North America (Appendix I). Since 1970, North American birds have suffered a net decline of three billion birds or 29% of 1970 levels (Rosenberg et al. 2019). Many of the species with the greatest declines are North American songbirds. While there are many bird recovery plans (see Conservation Status below) and cooperative initiatives to reduce the decline, many organizations agree that the decline can be reduced due to actions that are recommended by the Cornell Lab of Ornithology (Seven Simple Actions to Help Birds, <https://www.birds.cornell.edu/home/seven-simple-actions-to-help-birds/>).

SAFE NAS will amplify those messages within AZA institutions, to visitors, and the community. We have modified and broadened those actions where we think we can have greater impact. For example, the Cornell action “Use Less Plastic”, we’ve broadened to “Reduce contaminants that affect North American songbirds” We have also added “Reduce North American songbird trafficking,” an action not addressed by the Cornell actions, but one which seems to be increasing and, in fact, an area that States and the U.S. Fish and Wildlife Service are actively investigating (Rose Gnam, pers. com. 2019).

We recognize that it will be challenging to identify metrics in terms of the number of or trends in North American songbirds saved due to SAFE NAS. However, working with partners at many levels, we believe we will be value added as a contributor to saving these species. We can, however, measure numbers or acres or trends in bird habitat created, restored, or protected at AZA facilities and with our Program Partners. We can measure increases in AZA facilities participating in projects described in the action plan and we will strive to have 90% of SAFE NAS members implement them.

We will take an adaptive management approach (Runge, 2011) to planning, implementing, evaluating, and adjusting these actions. In the planning part of the cycle, we will use our

objectives to guide our planning (Figure 1). For each objective or goal, our actions are informed by wildlife sciences, policy, and social science. Each action will have a desired outcome and metrics to evaluate progress towards the objective.

Following planning, we will implement the actions. We will monitor benchmarks along the way. By the end of each year, we will measure the effectiveness of the actions taken. We will report the outcomes of these metrics to the SAFE NAS. Each year, the team will review and analyze the metrics to determine how or if the action should be modified the following year or whether they have been successful enough to move to subsequent actions. The cycle will be repeated annually, however, at the conclusion of the 3-year period of the action plan, a thorough review will be conducted by the team, including partners, which will inform the biological planning for the next 3-year adaptive management cycle.



Figure 1. Adaptive management approach to planning used by SAFE NAS. Based on Runge, 2011.

Status of Native Songbirds Within AZA

In the AZA PaCCT (Passeriformes, Colliformes, Caprimulgiformes, Trogoniformes) Taxon Advisory Group (TAG) 2016 Regional Collection Plan, zoos and aquariums are encouraged to consider native songbirds for collection as the opportunity arises. The PaACT TAG recognizes the value native songbirds provide in AZA collections and the opportunities they provide for advancing native bird conservation and has endorsed this program.

In 2017, the North American Songbird Working Group (NASWG) was approved by the AZA PaCCT TAG. The goals of the NASWG (prior to SAFE NAS) were to:

1. Promote North American songbirds in AZA accredited zoos and aquariums
2. Establish husbandry and management best practices for native songbirds
3. Partner with in situ organizations to enhance conservation of N. American species in the wild
4. Serve as expert advisors to programs seeking guidance on captive management
5. Promote and support Migratory Bird Day in zoos and aquariums
6. Streamline permitting processes for acquisition of native songbirds
7. Establish best practices for wild acquisition
8. Promote window collision prevention and Fatal Light Awareness Programs (FLAP) in zoos and aquariums, and local communities



Origin of the SAFE North American Songbird



Because the PaCCT TAG NASWG members reported so many conservation activities during 2017-2019, it was decided to incorporate the conservation activities into a SAFE program and have the NASWG return to its core function of native songbird population sustainability and husbandry. Exhibiting native songbirds in zoos and aquariums is increasing as more facilities become interested in native songbirds. Several facilities are breeding native resident and migratory songbirds and surplussing them to other institutions.

There are no North American songbird SSP's with the SAFE NAS program.

AZA Conservation Activities and Public Engagement Activities

AZA institutions are taking action to save native songbirds (Kreger and Hallager 2019; Hutchins *et al.* 2018; Hallager *et al.* 2017). Zoos and aquariums encourage and guide consumer actions such as purchasing Bird Friendly® coffee to preserve neotropical bird wintering grounds, selecting grass-fed beef to help save grassland birds, keeping cats indoors to prevent predation of songbirds, and purchasing certified sustainable paper products to help preserve the nesting grounds of boreal forest songbirds. We reduce our evening lighting during peak migratory seasons and use bird-friendly window treatments. We celebrate World Migratory Bird Day annually. Some zoos are also involved in Urban Bird Treaty <https://www.fws.gov/birds/grants/urban-bird-treaty.php> activities in cities such as Detroit, Chicago, and Baltimore. We create bird habitat on and off institution grounds and serve on bird-related boards and committees. While some institutions have native birds on exhibit, such as in aviaries, others highlight their local bird populations.

AZA zoos and aquariums offer specialized expertise to aid in the recovery of threatened and endangered songbird populations. For example, AZA zoos play a key role in breeding, studying, genetically managing, and reintroducing songbirds such as loggerhead shrike *Lanius ludovicianus* and Florida grasshopper sparrow *Ammodramus savannarum floridanus*. Some AZA zoos are participating in a North American songbird initiative led by the Conservation Centers for Species Survival, which seeks to grow connectivity between zoo and field populations of songbirds through a One Plan Approach. North American songbirds have been also highlighted in research, some of which is directly applicable to wild bird conservation. For example, the Smithsonian's National Zoo's wood thrush *Hylocichla mustelina* colony helped researchers understand the importance of food availability on the non-breeding grounds to breeding success in this species. By establishing native songbird populations in managed care and working to understand their needs, we can offer assistance to populations in decline. These populations can assist avian researchers by providing models for rare species, understanding avian health, life history, and testing potential field methods. The April/May 2019 issue of *Animal Keepers Forum* dedicated to North American songbirds provides excellent examples of native songbird conservation within AZA zoos and aquariums.

The 30 SAFE NAS program partner zoos and aquariums participate in many of the initiatives identified for this SAFE program. A full list of all Program Partner activities can be found in Appendix II.

1. Bird collisions: 34% of SAFE NAS Program Partners participate in some kind of bird collision monitoring program including Lights Out initiatives within their communities.
2. Cats: 7% of SAFE NAS Program Partners offer messaging on the impact roaming cats have on native wildlife.
3. Habitats: 27% of SAFE NAS Program Partners work on bird friendly habitat restoration on zoo or aquarium grounds or participate in similar initiatives within their communities.

4. Contaminants: only one SAFE NAS Program Partner identified actively campaigning to reduce contaminants to help birds, but this number may be under reported.
5. Bird Friendly® Coffee: 10% of SAFE NAS Program Partners promote the use of Bird Friendly® Coffee in their zoo or aquarium.
6. Citizen science: 86% of SAFE NAS Program Partners conduct some kind of Citizen Science activity such as hosting Migratory Bird Day events, bird counts, Motus tracking stations or other bird activities.
7. North American songbird trafficking: SAFE NAS Program Partners are collecting information about the level of threat and scope of NAS trafficking.
8. *Ex situ* research: although not an official SAFE NAS initiative, 14% of SAFE NAS zoos and aquariums conduct research on native songbirds. Activities include participation in other AZA native songbird initiatives (e.g. North American Songbird Working Group, C2S2 songbird initiative), housing native songbirds, rehabbing native songbirds, participating in *In situ* activities, and conducting research on native songbirds in a captive setting.

Figure 2 shows that during the first six months of 2020, SAFE NAS members continued to work on the seven conservation areas identified by this plan. It is important to note that some areas were more heavily emphasized than others (i.e., citizen science), indicating the level of need to develop goals and actions for less emphasized areas. It is also important to recognize that this may not be a typical time period for NAS SAFE members as institutions faced emergency situations as a result of the COVID-19 pandemic, including shutdowns, layoffs, and furloughs.

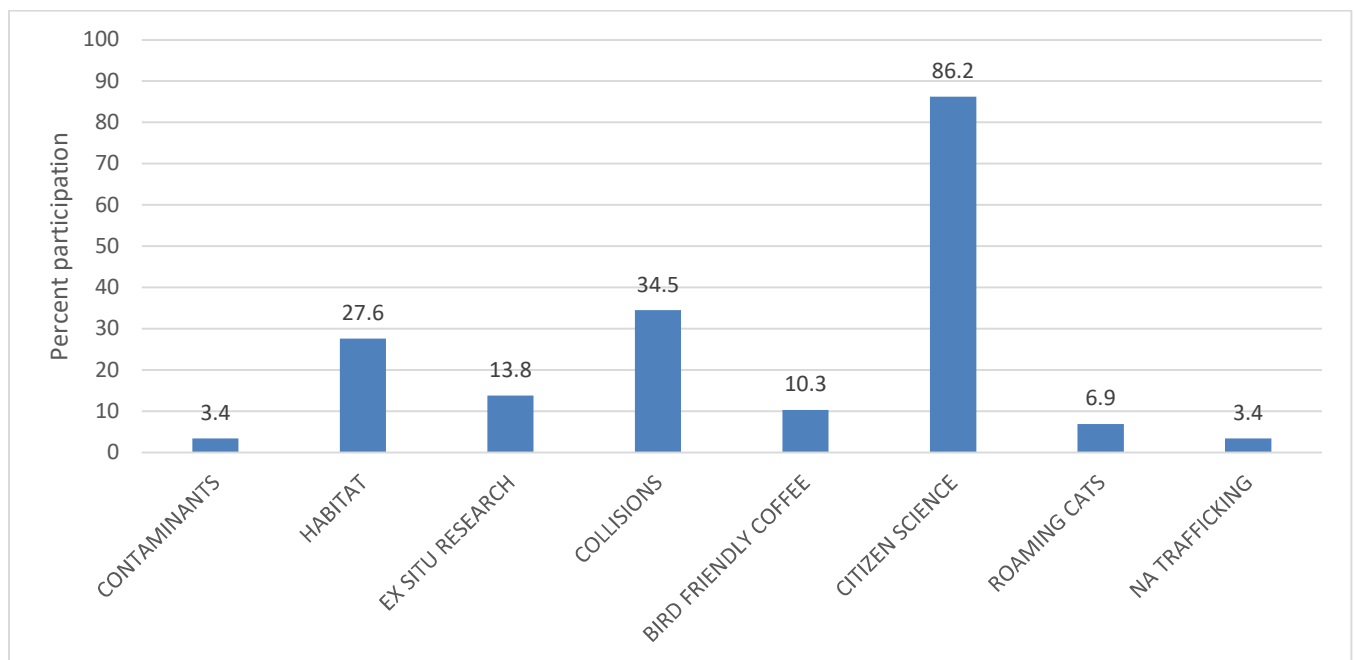


Figure 2. SAFE NAS member activities in the seven action areas from January -June 2020. N=30 institutions.

Conservation Status of North American Songbirds

The SAFE North American Songbird focuses on 318 species of North American songbirds that spend part of their life cycle in North America (Appendix I). Their conservation status depends on the assessment criteria of the determining authority.

According to the International Union for the Conservancy of Nature and Natural Resources (IUCN), population trends indicate that 124 species are declining, 88 are stable, 92 are increasing, and trends for 12 species are unknown. While the IUCN (International Union for Conservation of Nature) Red List of Threatened Species shows 290 species as Least Concern, one species is considered Critically Endangered (although probably extinct), five species are Endangered, 10 species are Near Threatened, and 11 species are vulnerable.

Songbirds traverse North America, crossing International borders throughout their annual life cycle. Canada, United States and Mexico each have conservation assessments as follows:

United States: The U.S. Fish and Wildlife Service lists 99 North American songbird species as Birds of Management Concern. These birds are a subset of Migratory Bird Treaty Act protected species which pose special management challenges because of a variety of factors (e.g., too few, too many, conflicts with human interests, societal demands). These songbirds are of concern because of: 1) documented or apparent population declines, 2) small or restricted populations, 3) dependence on restricted or vulnerable habitats.



Top row left (blue grosbeak) and middle (ovenbird) photo by Eric Peterson; top right (salt marsh sparrow) photo by Carl Giometti. Bottom left (western tanager, gray catbird, white crowned sparrow, Eastern bluebird, Baltimore oriole. All photos by Eric Peterson

The *State of North America's Birds 2016* (NABCI 2016), produced by the North American Bird Conservation Initiative (NABCI) contains the Watch List – species most at risk of extinction without significant conservation actions to reverse declines and reduce threats. 61 songbirds are included on the list. The report also assigns a Combined Conservation Score (CCS) ranging from 4 (widespread and relatively secure) to 20 for species of the highest concern. 53 songbirds are listed as having a score of 14 or higher.

- CITES <https://cites.org/> (accessed July 10, 2019)
- IUCN Red List of Threatened Species <https://www.iucnredlist.org/> (accessed July 10, 2019)
- U.S. Fish and Wildlife Service, Migratory Bird Program, Nov. 2011. *Birds of Management Concern and Focal Species* <https://www.fws.gov/migratorybirds/pdf/management/BMCFocalSpecies.pdf>

In 2019, one analysis published in *Science* made headlines when it identified that since 1970, North American birds have suffered a net decline of three billion birds or 29% of 1970 levels (K. Rosenberg et al. Decline of the North American avifauna. *Science*. Published online September 19, 2019. doi: 10.1126/science.aaw1313). Many of the species with the greatest declines are North American songbirds including American sparrows, wood warblers, old world sparrows, finches, starlings, thrushes, and both Eastern and Western meadowlarks. The report indicates that many bird declines correlate to loss of critical habitats, such as grasslands. <https://www.sciencenews.org/article/3-billion-birds-lost-since-1970-north-america>

Canada: The Species at Risk Act (SARA) is a piece of Canadian federal legislation which became law in Canada on December 12, 2002. It is implemented by Environment Canada. SARA identifies ways in which governments, organizations, and individuals can work together to preserve species at risk and establishes penalties for failure to obey the law. The purposes of SARA are to prevent wildlife species in Canada from disappearing, to provide for the recovery of wildlife species that no longer exist in the wild in Canada, are endangered, or threatened as a result of human activity, and to manage species of special concern to prevent them from becoming endangered or threatened. A series of measures applicable across Canada provides the means to accomplish these goals. Some of these measures establish how governments, organizations, and individuals in Canada work together, while others implement a species assessment process to ensure the protection and recovery of species. Some measures provide for sanctions for offences under SARA <https://www.canada.ca/en/environment-climate-change/services/environmental-enforcement/acts-regulations/about-species-at-risk-act.html>

Under SARA, 12 songbird species are endangered, 7 are listed as special concern, and 15 are listed as threatened.

The *State of Canada's Birds 2019* report draws on almost 50 years of data to describe the changing health of Canada's bird populations. This collaborative report was produced by the North American Bird Conservation Initiative (NABCI-Canada), under the leadership of Environment and Climate Change Canada, Birds Canada, Ducks Unlimited Canada, and Nature Canada. In the last decade, 80% of bird species newly assessed as threatened or endangered in

Canada have been aerial insectivores or grassland birds. [http://nabci.net/wp-content/uploads/39-184-Bird-Survey-Corrections EN web.pdf](http://nabci.net/wp-content/uploads/39-184-Bird-Survey-Corrections_EN_web.pdf)

Recovery plan or other Conservation Plan in Effect

There are many recovery plans for North American songbirds. Most are at regional levels or species levels. For example:

1. Partners in Flight advances full life-cycle conservation of landbirds in the Americas via sound science, integrated conservation partnerships, habitat delivery on public and private lands, and targeted citizen outreach. They coordinate stakeholders in areas like the boreal forest, Midwest, Southwest, and Department of Defense lands. <https://www.partnersinflight.org/>

2. Migratory Bird Joint Ventures: There are 18 Migratory Bird Joint Ventures. These focus on enhancing, restoring, and acquiring critical bird habitat nationwide. Examples include the Atlantic Coast, Canadian Intermountain, and Playa Lakes Joint Ventures. Partners include State and Federal agencies, Tribes, and non-Government organizations. <https://www.fws.gov/birds/management/bird-conservation-partnership-and-initiatives/migratory-bird-joint-ventures.php>

3. Focal Species management plans: These are species specific priorities of the USFWS. There are 11 focal songbird species management plans. <https://www.fws.gov/birds/management/managed-species/focal-species.php>

4. NABCI representation: All North American birds are represented in NABCI (North American Bird Conservation Initiative), where bird conservation is coordinated and prioritized. <http://nabci-us.org/>

SAFE NAS program leaders work with all of these plans through including plan members as Program Partners as well as serving on the NABCI Human Dimensions subcommittee. The co-chairs have a long history of working with these programs through the North American Songbird Working Group (an initiative of the AZA PACCT TAG) and one of them (Kreger) is a former deputy chief and special assistant in the Migratory Bird Program of the U.S. Fish and Wildlife Service. Members of the Steering Committee also work with State governments, Audubon Societies, and other bird conservation-related organizations that participate in these national plans.

Threats to Native Songbirds

The primary threats to songbirds include all of the following and more. The SAFE NAS will be addressing each of these threats in the 2020-2023 Action Plan.

Domestic Cats

Outdoor cats are among the top threats to global biodiversity and have contributed to the extinction of 40 bird species in the wild since 1500 (Doherty et al. 2016). In the United States and Canada, an estimated 2.4 billion and 200 million birds are killed by cats every year, respectively, and cat predation is the top source of direct, anthropogenic mortality to birds in these countries (State of the Birds 2014; Blancher 2013; Loss et al. 2013; Loss et al. 2015).

Outdoor cats also contribute to indirect impacts on birds, such as competition, fear, and disease transmission (e.g., Bonnington *et al.* 2013). One of these diseases, toxoplasmosis, is caused by infection with the parasite *Toxoplasma gondii*. This parasite relies on felines to sexually reproduce and is subsequently excreted into the environment in the form of oocysts, which may then infect any warm-blooded species. This parasite's persistence in and movement through the environment, lack of host specificity, and capacity for lethal and sub-lethal impacts make it a One Health and conservation threat, including for threatened birds (Miller et al. 2002; Work et al. 2016; Aguirre et al. 2019).



Photo by Eric Peterson. Gray catbirds are frequent victims of cat strikes

Glass Strikes



Photo by Eric Peterson. Ovenbirds are frequent victims of glass strike in the US

According to the American Bird Conservancy, up to one billion birds are killed by collisions with glass in the United States per year. Other sources of collision mortalities are wind turbines, communications towers, and power lines. Many of these birds are North American songbirds. Zoos and aquariums use glass to present their exhibits for an enhanced guest viewing experience. As conservation organizations, we have a responsibility to design our exhibits to be bird-friendly. Recently, AZA institutions have begun to take a leadership role in addressing collisions of wild birds with glass in their operations. This can be seen

in the adoption of bird-friendly design strategies in new construction https://abcbirds.org/wp-content/uploads/2019/04/Bird-Friendly-Building-Design_Updated-April-2019.pdf as well as the redesign of existing exhibits. There are simple and affordable strategies guests and their families can do to take an active role to protect birds at home. For example, putting up bird tape on windows at home is an easy action (<https://abcbirds.org/program/glasscollisions/abc-birdtape/> or <http://www.conveniencegroup.com/featherfriendly/feather-friendly>). We can model AZA values as we continue to integrate bird-friendly glass into the design of our newest buildings or to retrofit older buildings with bird-friendly products. It is a powerful message that together we can build bird-friendly architecture and educate millions of visitors each year on the glass strike issue, conservation implications, and the attainable solutions.

Trade

Until recently, it was believed that North American songbirds are not threatened by international trade and therefore are not listed in the appendices of CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora). However, at the 18th CITES Conference of the Parties, Sri Lanka and the United States introduced CoP18 Doc. 79 on songbird trade and conservation management (<https://cites.org/sites/default/files/eng/cop/18/doc/E-CoP18-079.pdf>), which provided preliminary data about international trade in songbirds. Some of the data came from U.S. law enforcement data. The Parties agreed with that songbirds, especially Asian species, may be threatened by trade. The CITES Secretariat will commission a preliminary study on the scale and scope of international songbird trade to consider the management and conservation priorities of the species involved in the trade. They will also convene a technical workshop and consult with technical experts. Results will be used to make recommendations that may include CITES species listings.

(Decisions 18.256-259, <https://cites.org/sites/default/files/eng/dec/valid18/E18-Dec-.pdf>)



Photo by Eric Peterson. Painted bunting are often used in singing contests in the United States

Habitat Loss and Non-native Species

The *State of North America's Birds 2016* (NABCI 2016), reviewed the population status of all 1,154 native bird species, including migrants, in North America by habitat type. The vulnerability assessments found that ocean and tropical forests contain the species of greatest concern, where extinction is likely without immediate conservation actions. Birds in steep decline were found in coastal habitats, arid lands, and grasslands. Even in wetlands, where many species are doing well due to waterfowl conservation programs, loss of wetlands may still result in population declines.

One threat to habitat is the abundance of nonnative plants. In urban and suburban landscapes, nonnative plant species are often preferred because they require little maintenance and do not attract damaging insects. However, a recent study of Carolina chickadees (*Poecile carolinensis*) demonstrated that where there is less than 70% native plant biomass, there are fewer arthropods and birds either switch to less preferred prey and produce fewer young or do not reproduce in the nonnative sites altogether (Narango *et al.* 2018).



Photo by Carl Giometti. An estimated 80% of the population has disappeared in just the last 15 years and over 40% habitat has been lost for the salt marsh sparrow since the 1800s

Contaminants



Photo by Eric Peterson. White-crowned sparrows are frequent victims of neonicotinoid poisoning.

Since Rachel Carson raised the alarm about the detrimental effects of contaminants, such as DDT, on survival of birds and other animals (Carson 1962), alternative methods for protecting plants, whether in agriculture or ornamental, has been an important area of research. In the 1990s, a new class of insecticides, neonicotinoids, was introduced to agriculture (Eng *et al.* 2017, Mineau and Palmer 2013). Unlike the more traditional organophosphates, neonicotinoids bind more strongly to insect neuroreceptors than to vertebrates, thus minimizing harm to people and wildlife (Mineau and Palmer 2013).

Migratory birds often stopover in agricultural areas to gather fuel for migration. Recent research (Eng *et al.* 2017) reinforced other research that neonicotinoids are possibly even more harmful to migratory birds than organophosphates. In a study on white-crowned sparrows (*Zonotrichia leucophrys*), organophosphates caused birds to become disoriented during migration. Neonicotinoid-fed birds not only failed to orient correctly, but also reduced body mass and fat stores. Impaired body condition can result in delayed migration and higher

susceptibility to disease and predation. The addition of improper migratory orientation increases mortality risk and lost breeding opportunities. According to Mineau and Palmer (2013, p. 3), “A single corn kernel coated with a neonicotinoid can kill a songbird. Even a tiny grain of wheat or canola treated with the oldest neonicotinoid, imidacloprid, can poison a bird. As little as 1/10th of a corn seed per day during egg-laying season is all that is needed to affect reproduction with any of the neonicotinoids registered to date.”

Neonicotinoids are not the only contaminants affecting North American songbirds. Plastics, ubiquitous in every bird habitat, are finding their way into nests, digestive tracts, and twisted around bird bodies. Songbirds are also attracted to oil spills and open oil field waste pits by insect prey trapped in the oil (U.S. Fish and Wildlife Service 2018).

SAFE NAS Program Objectives and Actions

Our program objectives and actions are based on the Cornell Lab of Ornithology (Seven Simple Actions to Help Birds, <https://www.birds.cornell.edu/home/seven-simple-actions-to-help-birds/>).

SAFE NAS focuses on 7 areas of interest which include:

1. Bird Collisions with Glass
2. Domestic Cat Impacts on Wildlife
3. Bird Friendly Habitat
4. Contaminants that Affect North American Songbirds
5. Bird Friendly® Coffee
6. Citizen Science
7. North American Songbird Trafficking

In addition, we recognize that there are far more songbird projects throughout the species' ranges than SAFE NAS member institutions can possibly support. One way to increase SAFE NAS's ability to advance North American songbird conservation is through endorsing projects that align with the objectives of the NAS action plan. SAFE NAS recognizes that some individuals or organizations, who may or may not be SAFE NAS partners, may request SAFE NAS endorsement as a means of providing legitimacy to their work and for use in leveraging project funds. SAFE NAS is pleased to endorse projects led by those who have the passion and demonstrated ability to further North American songbird conservation in range countries (See Appendix II: Endorsement Policy).

Conservation Objectives

Details can be found in Tables 1-7

Minimize bird collisions with glass at AZA facilities/partners and encourage the public to adopt best practices

- Develop a “tool box” of information for designing an on-site collision prevention program. It will include information on monitoring, tools for reporting collisions and how to deal with injured birds.
- Compile pictures of bird collision prevention being used by our program partners.
- Compile a list of various bird collision products and share the bird-safe building initiative with our partners.

AZA Program Partner Institutions adopt effective roaming cat messaging and practices

- Identify the current position of AZA Program Partners on domestic free-roaming cats by sending a survey as described in the communication/public awareness action
- Post Survey
 - a. Provide alternative methods if cats are utilized to control rodent populations on grounds
 - b. Provide program partners with scientific research on the negative impact of free-roaming domestic cats on wildlife, and emphasize the benefits to housing cats indoors
- With the support of designated TAG chairs and Program Partners submit a free-roaming cat position statement to AZA for review and publication to strengthen the united position on free-roaming cats amongst AZA institutions

AZA Program Partners will preserve and build native habitats where possible within their facilities and in the communities they serve

- Convert non-native to native landscaping at Program Partner facilities where possible.

Reduce contaminants that affect North American songbirds

- Develop guidance for alternatives to neonicotinoids used on AZA grounds

Bird Friendly® Coffee

- Increase awareness among gift shop managers and food service companies about Bird Friendly coffee and encourage them to sell it.

Promote and participate in citizen science

- Facilitate increased network of Motus stations across AZA members

North American Songbird trafficking

- Collect information about the extent of North American songbird trafficking, including the most commonly affected species, active regions, and developing trends.
- Identify how we can best assist partners, such as U.S. Fish and Wildlife Service.

Public/Stakeholder Engagement Objectives

Several objectives will incorporate the same methods for determining the best ways to engage public visitors in behavior change that directly aligns to minimize those conservation threats to North American Songbirds. The education advisors will use the Community-Based Marketing behavior change model, informed by surveys and data analysis, to identify the best tools for the most effective type of engagement for each type of behavior change. The tools and methods of engagement will be tailored to each threat/behavior change, as such the varied ways to engage visitors will be compiled into one tool box of resources. Examples of ways we may engage visitors include contests, social media hashtags asking visitors to share their examples of a change, or visitor pledges.

Minimize bird collisions with glass at AZA facilities/partners and encourage the public to adopt best practices

- Develop an education initiative.
- Using the Community-Based Social Marketing behavior change model, the most effective tool(s) for behavior change will be identified and promoted to Program Partners for encouraging visitors to make windows at home safe for birds.

AZA Program Partner Institutions adopt effective roaming cat messaging and practices

- Create a toolkit for AZA institutions and our partners with messaging that includes all SAFE NAS objectives.
- Using the Community-Based Social Marketing behavior change model, the most effective tool(s) for behavior change will be identified and promoted to Program Partners for encouraging visitors to keep their cats indoors.

Preserve and build native habitats where possible within Program Partner facilities and in the communities they serve

- Encourage visitors to preserve and build native habitats within their yards, schoolyards, and parks.
- Provide workshops/native plant sales to encourage interest in native habitats; work with local native plant groups to provide plants for visitors to buy/use.
- Collaborate with native plant groups to create pamphlet/list of native plants specific to regions/states

Reduce contaminants that affect North American songbirds

- Collect data from AZA institutions regarding current neonicotinoid use

Promote Bird Friendly® Coffee

- Provide tools and guidance to interpret Bird Friendly products at concessions and gift shops as well as aviaries and tropical agriculture/horticulture exhibits. Use the St. Louis, Wildlife Conservation Society and Smithsonian National Zoo & Conservation Biology Institute as models for Bird Friendly coffee interpretation and campaigning.

Promote and participate in citizen science

- Collect data from AZA institutions regarding current Motus use
- Increase visitor participation in bird citizen science

Reduce North American Songbird trafficking

- Develop a mechanism for placement of seized songbirds.

Communication/Public Awareness Objectives

In addition to more specific actions for each objective, public awareness for many of these objectives are incorporated into a SAFE NAS social media plan meant to increase the visibility of program partners engaged in conserving songbirds directly, or serving as examples of actions that can be taken by individuals to minimize conservation threats to North American songbirds. Many of the additional resources, such as graphics, flyers, and activities intended to raise awareness will cover multiple objectives and will be compiled for dissemination by the education advisors.

Minimize bird collisions with glass at AZA facilities/partners and encourage the public to adopt best practices

- Host a virtual roundtable and present talk on bird collisions at AZA Conference.
- SAFE NAS bird collisions team to work with WCC and AZA Board to develop a position statement for AZA.
- Produce a bird collision flyer and make it available to program partners to use as a means to disseminate information to zoo guests.

AZA Program Partner Institutions adopt effective roaming cat messaging and practices

- Share strategic messaging that include specific social media suggestions with attendees at AZA conferences and workshops and track use by providing searchable words or phrases
- Identify what Program Partners are doing currently to educate and engage visitors about North American Songbird conservation issues
- Assemble a North American Songbird educational resources tool kit for Program Partners, to include:
 - Social Media content and campaign ideas
 - Signage, graphics, photos
 - Activities, lesson plans, event ideas

Preserve and build native habitats where possible within Program Partner facilities and in the communities they serve

- Increase native landscaping and native plant restoration within Program Partner organizations and the communities they serve
- Identify what Program Partners are doing to promote native habitats within their organizations and beyond their borders
- Create a catalogue of educational resources, behavioral models, and social media strategies which could be used by Program Partners to encourage others in their area to protect and reclaim native habitats

Reduce contaminants that affect North American Songbirds

- Use presentations, articles and social media post to communicate dangers of neonicotinoid use and the benefits of their alternatives

Promote Bird Friendly® Coffee

- Develop awareness campaign
- Promote Bird Friendly® coffee in zoos and aquariums

- Identify what Program Partners are doing currently to educate and engage visitors about North American Songbird conservation issues
- Identify Bird Friendly institutional representatives
- Assemble a North American Songbird educational resources tool kit for Program Partners, to include:
 - Social Media content and campaign ideas
 - Signage, graphics, photos
 - Activities, lesson plans, event ideas

Promote and participate in citizen science

- Communicate to the public the role of zoos as important areas for native birds

Reduce North American Songbird trafficking

- Introduce the issue of North American songbird trafficking to zoos and aquariums and the general public on social media.
- Provide zoos and aquariums with tools to assist in reducing North American songbird trafficking through their own actions and those of guests.

Fundraising Objectives

Participation in SAFE NAS is not contingent on members providing financial resources. However, funds raised for the program are encouraged to assist in supporting projects, hosting events, publication costs, and other activities that align with the action plan. This SAFE funding objective will generate and facilitate increased financial support for North American Songbird SAFE goals through strategies that include: (1) establishment of an AZA dedicated account for managing contributions, (2) establishing a committee to develop and oversee fundraising activities and (3) identifying activities that require financial assistance to implement. Examples of activities in this plan that will require funding include production of materials for outreach events and activities and the purchase of equipment necessary to establish Motus tracking stations.

Many businesses, including those that produce bird-related products, will be approached with sponsorship opportunities. We also expect AZA member institutions to sponsor events and related products. SAFE NAS members will also investigate grant opportunities that may be available within member institutions, AZA, and through outside granting agencies. Federal, State, and municipal agencies may have grant opportunities and some have already expressed interest in participating in the SAFE NAS program.

We will establish a grants subcommittee composed of one member from each of the action subcommittees. This subcommittee will investigate grant opportunities, communicate them to the SAFE NAS membership, and review grant applications should the program develop a grant fund that can be awarded to members. If SAFE NAS may submit a single grant for a program, such as the SAFE Grant or AZA Conservation grant program, the subcommittee will review

proposals from the membership and select the most appropriate one(s) to send forward for funding.

Collisions Team		
ACTION	COST	TIME FRAME
Host a bird collision booth at an upcoming AZA conference	\$3000	Year 2-3
Present talks at AZA conferences on bird collisions	\$1000	Year 1-3

Cat Team		
ACTION	COST	TIME FRAME
Host an American Bird Conservancy booth at an AZA conference	\$3000	Year 1
Present talks at AZA conferences on the impacts of outdoor cats on wildlife	\$2500	Year 1 and 2

Habitat Team		
ACTION	TOTAL COST	TIME FRAME
Convert non-native to native landscaping at AZA Program Partner facilities where possible—provide grants to support with matching in-kind funding	\$10,000	Year 2 and 3
Present at least two talks at AZA conferences on strategies for incorporating more native plants in facility landscapes or strategies for encouraging native habitat preservation through education	\$1000	Year 3

Contaminants Team		
ACTION	COST	TIME FRAME
Present messaging at AZA conferences on ways to reduce contaminants that affect native songbirds.	\$1000	Years 1-3
Bird Friendly Coffee		
ACTION	COST	TIME FRAME
Apply for AZA funding to conduct an AZA-focused campaign	\$30,000	Year 1-3

that support migratory birds by educating the public about Bird Friendly coffee growing practices and serving it at member institutions		
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Reducing Native Songbird Trafficking		
ACTION	COST	TIME FRAME
No fundraising actions identified for this cycle of the Action Plan	\$0	N/A

SAFE North American Songbird Actions

To create an effective campaign that truly increases behaviors beneficial for the conservation of North American songbirds, all AZA zoos and aquariums participating in the North American Songbird SAFE should have a unified approach to increasing specific behaviors in visitors. A complete behavior change model that addresses all of the relevant North American songbird conservation issues which could be mitigated, or even resolved, by visitors' changing behavior, will be an important tool in promoting how to implement this change with AZA visitors.

SAFE NAS will identify which favorable behaviors will have the highest impact on NAS conservation, then determine one tool for behavior change to use for each behavior identified as being the most desirable change aligned with a specific NAS conservation issue. Determining the most effective tool will require assessing the types of behaviors, the types of audiences, how the behavior will be promoted, and how easy it will be to track the desired change. SAFE NAS will aim to summarize all these considerations into a single document to be shared with SAFE NAS partners in order to unify our approach of changing our visitors' behaviors for the benefit of NAS conservation. The following actions were developed by the SAFE NAS teams, comprised of SAFE NAS Steering Committee members, other interested members, and advisors. We note that there is some redundancy among actions across objectives. For example, most objectives include developing educational materials. The Education team will work with each group in developing the materials and organizing them into a comprehensive North American Songbird conservation toolbox.

General Objective: World Migratory Bird Day

Many AZA institutions participate in the Environment of the Americas, World Migratory Bird Day (WMBD), which has a different theme from year to year. Therefore, many of the objectives below will be applicable to the Communication and Public Awareness/Engagement Action of holding a WMBD on grounds. The metric will be to increase the SAFE NAS institutions participating in WMBD each year, aiming to have most participating by year 3 (80%). WMBD

provides awareness to guests and staff through social media posts, providing literature, special tours, and engagement through activities such as building nest boxes, collecting citizen science data, and cleaning and enhancing native habitat.

Table 1. Minimize bird collisions with glass at AZA facilities/partners and encourage the public to adopt best practices				
	Action	Metric	Time Frame	Who?
Conservation Action	Develop a “tool box” for use by AZA institutions of information for designing an on-site collision prevention program. It will include information on monitoring, tools for reporting collisions and how to deal with injured birds.	50% of the program partners participate in an active monitoring program at their facility and all program partners incorporate bird collision.	Year 2-3	SAFE NAS Collisions team
	<p>Compile pictures of bird collision prevention being used by our program partners.</p> <p>Compile a list of various bird collision products and share the bird-safe building initiative with our partners.</p> <p>Distribute a best practices document to AZA facilities with the intent that they will adopt ways to make their glass bird-safe on grounds.</p>	<p>Program partners and non-affiliated AZA facilities evaluate glass on grounds that can impact migratory birds. Add 5 new facilities to this existing list that have incorporated bird-safe elements to existing or new glass.</p> <p>AZA facilities pledge to consider bird friendly glass in new construction and to incorporate bird-safe elements into existing glass.</p>	Year 3	SAFE NAS Collisions team
	SAFE NAS bird collisions team to work with WCC and AZA Board to develop a position statement encouraging the use of bird-safe elements for glass at AZA facilities.	<p>To see an 25% increase of AZA facilities incorporating bird-safe elements in existing or new glass as a result of the AZA position statement.</p> <p>AZA adopts the position statement.</p>	Year 2-3	SAFE NAS Collision team, Education team, advisors
Public/Stakeholder Engagement Action	Using the Community-Based Social Marketing behavior change model, the most effective tool(s) for behavior change will be identified and promoted to Program Partners for encouraging visitors to make windows at home safe for birds.	Finished document identifying behavior change and tracking approach. Potential metrics might include, contests, social media hashtags, and visitor pledges, depending the specific tool identified.	Year 2	SAFE NAS Education team

Communication/Public Awareness Action	Host a virtual roundtable and present talk on bird collisions at AZA Conference.	Create awareness and future participation in the SAFE NAS program and bird safety measures at 100 facilities in North American zoos and aquariums.	Year 2	SAFE NAS Collision team, Education team, advisors
	Produce a bird collision flyer and make it available to SAFE NAS program partners to use as a means to disseminate information to zoo guests.	All program partners will use this flyer or use the SAFE NAS flyer to develop their own flyer for use in education and outreach about bird collisions to staff, guests, and local organizations the facilities partner with.	Year 2	SAFE NAS Collision team, Education team, advisors
	Assemble a North American Songbird educational resources tool kit for Program Partners, to include: <ul style="list-style-type: none"> • Social Media content and campaign ideas • Press release templates • Signage, graphics, photos • Activities, lesson plans, event ideas, project demonstrations 	Resources made available to program partners and used by 70% of program partners. Identify unique social media hashtags to track use.	Years 2-3	SAFE NAS Collision team, Education team, advisors

Table 2. AZA Program Partners adopt effective free-roaming domestic cat programs and messaging that benefit both cats and wildlife				
	Action	Metric	Time Frame	Who?
Conservation Action	Identify the current position of AZA Program Partners on domestic free-roaming cats by sending a survey as described in the communication/public awareness action.	Obtain data from 80% of Program Partners.	Year 1-2	All SAFE NAS team members and AZA Program Partner institutions
	Provide alternative methods if cats are utilized to control rodent populations on grounds Provide program partners with scientific research on the negative impact of free-roaming domestic cats on wildlife, and emphasize the benefits to housing cats indoors.	50% of programs partners eliminate or work towards the elimination of utilizing free-roaming cats on grounds.	Year 3	All SAFE NAS team members and AZA Program Partner institutions
	With the support of designated TAG chairs and Program Partners submit a free-roaming cat position statement to AZA for review and publication to	Draft Position Statement is submitted and shared with chairs and partners. Position statement	Year 2-3	All SAFE NAS free-roaming cat team members and designated TAG chairs and Program

	strengthen the united position on free-roaming cats amongst AZA institutions.	feedback received Year 3 - Feedback determines next steps of the action to strengthen the united position on free-roaming cats by AZA institution members.		Partners
Public/Stakeholder Engagement Action	Using the Community-Based Social Marketing behavior change model, the most effective tool(s) for behavior change will be identified and promoted to Program Partners for encouraging visitors to keep their cats indoors. (will be combined with corresponding actions from other objectives)	Finished document identifying behavior change and tracking approach. Potential metrics might include, contests, social media hashtags, and visitor pledges, depending the specific tool identified.	Year 2	SAFE NAS Education team
Communication/Public Awareness Action	Share strategic messaging that includes specific social media suggestions with attendees at AZA conferences and workshops and track use by providing searchable words, phrases, and hashtags.	AZA institutions share messages via social media that result in a high number of engagements (>2K).	Year 2-3	All SAFE NAS roaming cat team members
	Identify what Program Partners are doing currently to educate and engage visitors about North American Songbird conservation issues (will be combined with corresponding actions from other objectives).	Survey program partners about the ways they engage visitors about North American songbirds (e.g. signage, events, programs, etc.) and obtain data from 80% of program partners.	Year 2	SAFE NAS Education team
	Assemble a North American Songbird educational resources tool kit for Program Partners, to include: <ul style="list-style-type: none"> • Social Media content and campaign ideas • Signage, graphics, photos • Activities, lesson plans, event ideas 	50% of partners promote keeping cats indoors to staff and guests using resources made available to program partners.	Years 1-2	SAFE NAS Education team

Table 3. Preserve and Build Native Habitats Within Program Partner Facilities and in the Communities They Serve

	Action	Metric	Time Frame	Who?
Conservation Action	To educate and persuade facility decision makers (i.e. directors, board members) to create, enhance, or maintain songbird habitat on grounds. Collaborate with native plant groups to create pamphlet/list of native plants specific to regions/states of each AZA region, making this list available to AZA partners for their use in planning.	Provide background information document that can be used by SAFE NAS members in discussion with decision makers.	Years 1	Partner facilities along with native plant societies, local universities, local plant centers, cooperative extension, local nature clubs, botanical gardens, USDA, Association of Zoological Horticulture (AZH), other SAFE programs
	Consult with horticulture staff to convert areas or enhance landscaping with native perennials, annuals, hardwoods to benefit the songbirds of their area.	All of the SAFE NAS partners will convert or preserve space for native landscaping.	Year 3	Partner facilities along with native plant societies, local universities, local plant centers, cooperative extension, local nature clubs, botanical gardens, USDA, Association of Zoological Horticulture (AZH), other SAFE programs
Public/Stakeholder Engagement Action	Participants of education programs about native plant will pledge to maintain and/or increase the number of native plants in their landscape to benefit songbirds.	50% of SAFE NAS program participants will carry out a program that collects pledges from visitors.	Year 2	native plant societies, master gardener groups, local universities, homeowner associations, botanical gardens
	Program Partners will increase the number of native habitat programs and/or exhibit panels to promote the planting and conservation of native habitats that benefit songbirds.	Survey SAFE NAS program partners to determine the number of educational programs, exhibit displays, and acres of habitat that promote increasing native habitats for songbirds.	Year 3	native plant societies, master gardener groups, local universities, homeowner associations, botanical gardens
Communication/Public Awareness Action	Identify what Program Partners are doing to educate and engage visitors regarding habitat loss, habitat reclamation, and the effect both have on songbirds.	Create document that lists strategies Program Partners are using to promote songbird habitats and to educate about habitat loss.	Year 1	SAFE NAS Education Team, Habitat Team

	Create songbird educational materials into a “tool kit” on songbird habitat needs with suggestions for social media campaigns, native plant promotions, and World Migratory Bird Day activities.	At least 10 Partners will agree to use the materials generated within the coming year.	Year 2	SAFE NAS Education Team, Habitat Team
	Inform AZA membership about the importance of incorporating native plants in landscapes, as it relates to songbird habitat .	Present at AZA conferences at least twice in the next three years on strategies for incorporating more native plants in facility landscapes and/or strategies for encouraging the public to use more native plants in their landscaping.	Year 3	SAFE NAS Education Team, Habitat Team

Table 4. Reduce Contaminants that Affect North American Songbirds

	Action	Metric	Time Frame	Who?
Conservation Action	Research and compile list of bird-friendly pesticide alternatives to neonicotinoids that can be used by zoos and aquariums.	A document that can be shared among zoos.	Year 2 and 3	Zoo and aquarium personnel involved in any aspect of pest management.
Public/Stakeholder Engagement Action	Collaborate with Association of Zoological Horticulture (AZH) to survey current zoo and aquarium awareness and use of neonicotinoids on grounds.	Completed survey with at least 50% response rate.	Year 1	AZH, Zoo and aquarium involved in pest management
Communication/Public Awareness Action	Increase awareness of the dangers of neonicotinoids and potential alternatives for zoo personnel through fact sheets, presentations, and article.	Fact sheet for neonicotinoids identified in our survey that can be distributed to zoos; a presentation at an AZA meeting in a bird or pollinator focused session, and an article an AZA Connect on neonicotinoid concerns and solutions.	Year 2-3	SAFE NAS contaminant subteam, AZH
	Use social media to raise awareness on the dangers of neonicotinoids to songbirds.	At least 5 posts on Facebook, with increasing views for each subsequent post.	Years 1-2	SAFE NAS Contaminants subteam, SAFE NAS Communications team

Table 5. Promote Bird Friendly® Coffee

	Action	Metric	Time Frame	Who?
Conservation Action	Work with Gift shop managers and food service companies to sell Bird Friendly coffee.	Gift shop managers and food service companies are aware of the importance of Bird Friendly coffee and how to procure it.	Year 1-3	Smithsonian Migratory Bird Center; Audubon, Cornell
Public/Stakeholder Engagement Action	Collect data on the number of Program Partners recognizing WMBD and increase that number, as well as the scope by encouraging partnerships with relevant organizations. (will be combined with corresponding actions from other objectives).	Baseline data gathered on the number of program partners holding WMBD a celebration; increase by 10% from baseline in each subsequent year. Gather data on the number of program partners that partner with other organizations.	Years 1-3	SAFE NAS Education team
	Identify zoos and aquariums using Bird Friendly® coffee and encourage more institutions to use or promote.	Increase in the number of zoos and aquariums using or marketing Bird Friendly® coffee.	Years 1-3	Smithsonian Migratory Bird Center; Audubon, Cornell https://www.allaboutbirds.org/7-bird-friendly-foods-to-put-in-your-pantry/
Communication/Public Awareness Action	Promote Bird Friendly® coffee in zoos and aquariums. Promote Bird Friendly® coffee through quarterly AZA network postings.	Quarterly AZA network postings promote Bird Friendly® coffee.	Years 1-3	Smithsonian Migratory Bird Center; Audubon https://www.allaboutbirds.org/7-bird-friendly-foods-to-put-in-your-pantry/
	Assemble a North American Songbird educational resources tool kit for Program Partners, to include: Social Media content and campaign ideas; Signage, graphics, photos; Activities, lesson plans, event ideas (will be combined with corresponding actions from other objectives).	Resources made available to program partners and used by 70% of program partners. Identify unique social media hashtags to track engagement.	Years 1-2	Smithsonian Migratory Bird Center

Table 6. Promote and Participate in Citizen Science				
	Action	Metric	Time Frame	Who?
Conservation Action	Complete Motus manual and make available to zoos interested in hosting stations.	A document that can be shared among zoos.	Year 1 & 2	Zoo and Aquarium personnel
Public/Stakeholder Engagement Action	Survey zoos to find out which zoos already have Motus stations and what they are doing to use the Motus station to increase visitor awareness and engagement regarding migratory bird conservation.	Completed survey with at least 50% response rate.	Year 1	Zoo and Aquarium personnel, including conservation and outreach departments, SAFE NAS Communications subteam
	Provide recommendations and guidance for incorporating a zoo's Motus tower into the visitor experience.	Production of a guidance document and implementation by each zoo with an existing Motus tower.	Years 2-3	Zoo and Aquarium personnel, including conservation and outreach departments
	Use known birding days (i.e. National Migratory Bird Day, Big Sit) to have partner zoos promote eBird citizen science by setting up an education station on zoo grounds where local birders and experts can interact and engage with visitors.	10 zoos and aquariums participate in birding events.	Year 2	Zoo and Aquarium personnel, including conservation and outreach departments
Communication/Public Awareness Action	Have each AZA member listed as a single hotspot in eBird and manage a database on eBird observations at zoos.	Designation as a hotspot in eBird for every AZA member.	Year 1	SAFE NAS Citizen Science team

Table 7. Reduce North American Songbird Trafficking

	Action	Metric	Time Frame	Who?
Conservation Action	<p>Collect information about the extent of North American songbird trafficking, including the most commonly affected species, active regions, and developing trends.</p> <p>Review available data by identifying data sources, reviewing literature, and interviewing law enforcement officials and others involved in monitoring and ending songbird trafficking.</p> <p>Work with wildlife law enforcement agencies and other partners to identify how we can best assist their efforts.</p>	<p>Keep meeting minutes. File key information, including publications, on SAFE NAS Network. Identify partners.</p> <p>Produce a summary report to inform future SAFE NAS conservation actions.</p> <p>Identify three future conservation actions.</p>	Year 1-3	SAFE NAS Songbird Trafficking team and Education team, and partners. Potential partners include World Wildlife Fund TRAFFIC, U.S. Fish and Wildlife Service Office of Law Enforcement and Migratory Bird Program, State wildlife agencies, Wildlife Trafficking Alliance
Public/Stakeholder Engagement Action	Establish a mechanism for placement of North American songbirds seized by law enforcement authorities into AZA institutions.	A guidance document will be produced for use by AZA institutions and law enforcement.	Year 1-3	SAFE NAS Trafficking team, appropriate Federal and State law enforcement officials, AZA leadership (i.e., Government Affairs, TAG chairs)
Communication/Public Awareness Action	Introduce the issue of North American songbird trafficking to zoos and aquariums and general public on social media.	At least six posts per year about North American songbird trafficking on relevant AZA social media platforms. Track engagement and reach of Facebook posts.	Year 1	SAFE NAS Songbird Trafficking team, Education team, Social Media team, and partners
	Provide zoos and aquariums with tools to assist in reducing North American songbird trafficking through their own actions and those of guests.	<p>Increase awareness among AZA members through an article in <i>Connect</i>.</p> <p>Create a fact sheet for AZA institutions to use as a guide for what to do about reporting trafficking, communicating to visitors about this issue, and how to assist Law Enforcement with songbird confiscations.</p>	Years 1-3	

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Canada warbler, photo by Eric Peterson

Appendix I: North American Songbird Species covered by the North American Songbird SAFE Program United States, Canada
Includes species that spend all or part of the annual cycle in North America.

1. IUCN (International Union for Conservation of Nature) <https://www.iucnredlist.org/>
2. CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora): <https://www.cites.org/eng/disc/species.php>
3. USFWS (United States Fish and Wildlife Service): <https://www.fws.gov/endangered/>
4. BMC (Birds of Management Concern): <https://www.fws.gov/birds/management/managed-species/birds-of-management-concern.php>
5. CCSmax: <https://www.stateofthebirds.org/2016/resources/species-assessments/>
6. 2016 watch list: <https://www.stateofthebirds.org/2016/>
 - RECOVER: Red Watch List - Species with extremely high vulnerability due to small population and range, high threats, and range wide declines. Partner's in Flight population goal for these species of highest concern is to RECOVER populations well above current levels. These species have restricted distributions and small, declining populations. Most face elevated threats and also are habitat specialists, requiring focused management for particular habitat conditions. Several are threatened by rapidly changing climate. Increased support is necessary to successfully recover these species and prevent additional listings. More targeted monitoring is needed to clarify urgency and evaluate actions. <https://www.partnersinflight.org/wp-content/uploads/2016/07/SPECIES-OF-CONT-CONCERN-from-pif-continental-plan-final-spread-2.pdf>
 - i. (listed as Red on Appendix I)
 - PREVENT DECLINE: "R" Yellow Watch List - Species not declining but vulnerable due to small range or population and moderate threats. These species require constant care and long-term assessment to meet Partner's in Flight's goal to PREVENT DECLINES. It is critical that the already high vulnerability of these species due to ecological specialization is not increased by existing threats or unpredictable events. If populations of these species begin to decline, they will become the next Red Watch List species. These species also need improved monitoring due to high uncertainty in population trend. This group includes numerous species of aridland habitats in the southwestern U.S. as well as several marsh or grassland specialists <https://www.partnersinflight.org/wp-content/uploads/2016/07/SPECIES-OF-CONT-CONCERN-from-pif-continental-plan-final-spread-2.pdf>
 - i. (listed as Yellow R on Appendix I)
 - REVERSE DECLINE: "D" Yellow Watch List - Species with population declines and moderate to high threats. These species have declining populations and thus Partner's in Flight's goal is to REVERSE these DECLINES. Many of these species have lost 50%-90% of their population in the past 40 years, declines that are representative of deteriorating conditions in virtually every terrestrial habitat and region. Partner's in Flight's goal for these species is to stabilize populations in the short-term and then reclaim a portion of their populations within 30 years, to bring them to safer levels and avoid special protection measures. Best management practices need to be developed and implemented to maintain the diversity of habitats and successional stages needed by these species. <https://www.partnersinflight.org/wp-content/uploads/2016/07/SPECIES-OF-CONT-CONCERN-from-pif-continental-plan-final-spread-2.pdf>
 - Breeding, non-breeding habits, winter geography: <https://www.stateofthebirds.org/2016/resources/species-assessments/>

- i. (listed as Yellow D on Appendix I)
7. Watch List definition: The U.S.-Canada Watch List is synonymous with the list of U.S.-Canada Concern Species and includes those species that are most vulnerable at a continental scale within these two countries, due to a combination of small and declining populations, limited distributions, and high threats throughout their ranges. Some of these species are already recognized as Threatened or Endangered at federal levels. Note that many Mexican species would qualify as “Watch List” species using current criteria, but rules for defining Mexican Watch List species have not yet been established. <http://rmbo.org/pubs/downloads/PIFHandbook2012.pdf>
8. Committee on the Status of Endangered Wildlife in Canada (COSEWIC) <http://www.cosewic.ca/index.php/en-ca/>
9. Species at Risk Act (SARA) <https://laws.justice.gc.ca/eng/acts/S-15.3/page-17.html#h-435647> The *Species at Risk Act* (SARA) establishes Schedule 1, as the official list of wildlife species at risk. It classifies those species as being either extirpated, endangered, threatened, or a special concern.

English Name	Scientific Name	IUCN ¹	Population trend	CITES ²	USFWS ³	BMC ⁴	CCSmax ⁵	Watch List ^{6,7}	COSEWIC status ⁹	Schedule status ¹⁰	SARA schedule ¹⁰
Abert's Towhee	<i>Melospiza aberti</i>	LC	increasing	not listed	not listed	no	12	no			
Acadian Flycatcher	<i>Empidonax virens</i>	LC	stable	not listed	not listed	yes	12	no	Endangered	Endangered	Schedule 1
Alder Flycatcher	<i>Empidonax alnorum</i>	LC	stable	not listed	not listed	no	9	no			
Altamira Oriole	<i>Icterus gularis</i>	LC	increasing	not listed	not listed	yes	12	no			
American Crow	<i>Corvus brachyrhynchos</i>	LC	increasing	not listed	not listed	no	6	no			
American Dipper	<i>Cinclus mexicanus</i>	LC	stable	not listed	not listed	no	10	no			
American Goldfinch	<i>Spinus tristis</i>	LC	increasing	not listed	not listed	no	6	no			
American Pipit	<i>Anthus rubescens</i>	LC	decreasing	not listed	not listed	no	8	no			
American Redstart	<i>Setophaga ruticilla</i>	LC	decreasing	not listed	not listed	no	11	no			
American Robin	<i>Turdus migratorius</i>	LC	increasing	not listed	not listed	no	5	no			
American Tree Sparrow	<i>Spizelloides arborea</i>	LC	decreasing	not listed	not listed	no	10	no			
Arctic Warbler	<i>Phylloscopus borealis</i>	LC	increasing	not listed	not listed	no	8	no			
Ash-throated Flycatcher	<i>Myiarchus cinerascens</i>	LC	increasing	not listed	not listed	no	8	no			
Audubon's Oriole	<i>Icterus graduacauda</i>	LC	decreasing	not listed	not listed	yes	14	Yellow R			
Bachman's Sparrow	<i>Peucaea aestivalis</i>	NT	decreasing	not listed	not listed	yes	16	Red			
Bachman's Warbler likely extinct, last sighting 1988	<i>Vermivora bachmanii</i>	CR	unknown	not listed	endangered	yes	18	Red			
Baird's Sparrow	<i>Ammodramus bairdii</i>	LC	decreasing	not listed	not listed	yes	15	Yellow D	Special Concern	Special Concern	Schedule 1

English Name	Scientific Name	IUCN ¹	Population trend	CITES ²	USFWS ³	BMC ⁴	CCSmax ⁵	Watch List ^{6, 7}	COSEWIC status ⁹	Schedule status ¹⁰	SARA schedule ¹⁰
Baltimore Oriole	<i>Icterus galbula</i>	LC	stable	not listed	not listed	no	10	no			
Bank Swallow	<i>Riparia riparia</i>	LC	decreasing	not listed	not listed	no	11	no	Threatened	Threatened	Schedule 1
Barn Swallow	<i>Hirundo rustica</i>	LC	decreasing	not listed	not listed	no	8	no	Threatened	Threatened	Schedule 1
Bay-breasted Warbler	<i>Setophaga castanea</i>	LC	decreasing	not listed	not listed	yes	10	no			
Bell's Sparrow	<i>Artemisospiza belli</i>	LC	unknown	not listed	not listed	no	13	no			
Bell's Vireo	<i>Vireo bellii</i>	LC	increasing	not listed	not listed	no	12	no			
Bendire's thrasher	<i>Toxostoma bendirei</i>	VU	decreasing	not listed	not listed	yes	16	Red			
Bewick's Wren	<i>Thryomanes bewickii</i>	LC	stable	not listed	not listed	yes	11	no			
Bicknell's Thrush	<i>Catharus bicknelli</i>	VU	decreasing	not listed	not listed	yes	17	Red	Threatened	Threatened	Schedule 1
Black Phoebe	<i>Sayornis nigricans</i>	LC	increasing	not listed	not listed	no	8	no			
Black Rosy-Finch	<i>Leucosticte atrata</i>	EN	decreasing	not listed	not listed	yes	17	Red			
Black-and-white Warbler	<i>Mniotilta varia</i>	LC	decreasing	not listed	not listed	no	11	no			
Black-billed Magpie	<i>Pica hudsonia</i>	LC	stable	not listed	not listed	no	9	no			
Blackburnian Warbler	<i>Setophaga fusca</i>	LC	increasing	not listed	not listed	no	9	no			
Black-capped Chickadee	<i>Poecile atricapillus</i>	LC	increasing	not listed	not listed	no	7	no			
Black-capped Gnatcatcher	<i>Polioptila nigriceps</i>	LC	decreasing	not listed	not listed	no	15	Yellow D			
Black-capped Vireo	<i>Vireo atricapilla</i>	VU	decreasing	not listed	not listed	yes	17	Red			
Black-chinned Sparrow	<i>Spizella atrogularis</i>	LC	decreasing	not listed	not listed	yes	15	Yellow D			
Black-crested Titmouse	<i>Baeolophus atricristatus</i>	LC	stable	not listed	not listed	no	10	no			
Black-headed Grosbeak	<i>Pheucticus melanocephalus</i>	LC	increasing	not listed	not listed	no	9	no			
Blackpoll Warbler	<i>Setophaga striata</i>	NT	decreasing	not listed	not listed	no	11	no			
Black-tailed Gnatcatcher	<i>Polioptila melanura</i>	LC	decreasing	not listed	not listed	no	11	no			
Black-throated Blue Warbler	<i>Setophaga caerulescens</i>	LC	increasing	not listed	not listed	no	9	no			
Black-throated Gray Warbler	<i>Setophaga nigrescens</i>	LC	stable	not listed	not listed	yes	13	no			
Black-throated Green Warbler	<i>Setophaga virens</i>	LC	decreasing	not listed	not listed	yes	9	no			
Black-throated Sparrow	<i>Amphispiza bilineata</i>	LC	decreasing	not listed	not listed	no	9	no			
Black-whiskered Vireo	<i>Vireo altiloquus</i>	LC	unknown	not listed	not listed	no	12	no			

English Name	Scientific Name	IUCN ¹	Population trend	CITES ²	USFWS ³	BMC ⁴	CCSmax ⁵	Watch List ^{6, 7}	COSEWIC status ⁹	Schedule status ¹⁰	SARA schedule ¹⁰
Blue Grosbeak	<i>Passerina caerulea</i>	LC	increasing	not listed	not listed	no	8	no			
Blue Jay	<i>Cyanocitta cristata</i>	LC	stable	not listed	not listed	no	8	no			
Blue-gray Gnatcatcher	<i>Polioptila caerulea</i>	LC	increasing	not listed	not listed	no	7	no			
Blue-headed Vireo	<i>Vireo solitarius</i>	LC	increasing	not listed	not listed	no	7	no			
Bluethroat	<i>Luscinia svecica</i>	LC	stable	not listed	not listed	no	10	no			
Blue-winged Warbler	<i>Vermivora cyanoptera</i>	LC	decreasing	not listed	not listed	yes	13	no			
Boat-tailed Grackle	<i>Quiscalus major</i>	LC	increasing	not listed	not listed	no	12	no			
Bobolink	<i>Dolichonyx oryzivorus</i>	LC	decreasing	not listed	not listed	yes	14	Yellow D	Threatened	Threatened	Schedule 1
Bohemian Waxwing	<i>Bombycilla garrulus</i>	LC	increasing	not listed	not listed	no	9	no			
Boreal Chickadee	<i>Poecile hudsonicus</i>	LC	decreasing	not listed	not listed	no	7	no			
Botteri's Sparrow	<i>Peucaea botterii</i>	LC	stable	not listed	not listed	yes	13	no			
Brewer's Blackbird	<i>Euphagus cyanocephalus</i>	LC	decreasing	not listed	not listed	no	10	no			
Brewer's Sparrow	<i>Spizella breweri</i>	LC	decreasing	not listed	not listed	yes	11	no			
Bridled Titmouse	<i>Baeolophus wollweberi</i>	LC	stable	not listed	not listed	no	12	no			
Bronzed Cowbird	<i>Molothrus aeneus</i>	LC	stable	not listed	not listed	no	6	no			
Brown Creeper	<i>Certhia americana</i>	LC	stable	not listed	not listed	no	8	no			
Brown Thrasher	<i>Toxostoma rufum</i>	LC	decreasing	not listed	not listed	yes	11	no			
Brown-capped Rosy-Finch	<i>Leucosticte australis</i>	EN	decreasing	not listed	not listed	yes	18	Red			
Brown-crested Flycatcher	<i>Myiarchus tyrannulus</i>	LC	increasing	not listed	not listed	no	8	no			
Brown-headed Cowbird	<i>Molothrus ater</i>	LC	stable	not listed	not listed	no	7	no			
Brown-headed Nuthatch	<i>Sitta pusilla</i>	LC	decreasing	not listed	not listed	yes	13	no			
Buff-breasted Flycatcher	<i>Empidonax fulvifrons</i>	LC	decreasing	not listed	not listed	yes	12	no			
Bullock's Oriole	<i>Icterus bullockii</i>	LC	stable	not listed	not listed	no	11	no			
Bushtit	<i>Psaltiriparus minimus</i>	LC	stable	not listed	not listed	no	11	no			
Cactus Wren	<i>Campylorhynchus brunneicapillus</i>	LC	decreasing	not listed	not listed	yes	12	no			
California Gnatcatcher	<i>Polioptila californica</i>	LC	decreasing	not listed	not listed	no	14	Yellow R			
California Scrub Jay	<i>Aphelocoma californica</i>	LC	stable	not listed	not listed	no	9	no			
California Thrasher	<i>Toxostoma redivivum</i>	LC	decreasing	not listed	not listed	no	16	Yellow D			

English Name	Scientific Name	IUCN ¹	Population trend	CITES ²	USFWS ³	BMC ⁴	CCSmax ⁵	Watch List ^{6, 7}	COSEWIC status ⁹	Schedule status ¹⁰	SARA schedule ¹⁰
California Towhee	<i>Melospiza crissalis</i>	LC	decreasing	not listed	not listed	yes	10	no			
Canada Warbler	<i>Cardellina canadensis</i>	LC	decreasing	not listed	not listed	yes	14	Yellow D	Threatened	Threatened	Schedule 1
Canyon Towhee	<i>Melospiza fusca</i>	LC	stable	not listed	not listed	yes	9	no			
Canyon Wren	<i>Catherpes mexicanus</i>	LC	decreasing	not listed	not listed	no	9	no			
Cape May Warbler	<i>Setophaga tigrina</i>	LC	stable	not listed	not listed	no	13	Yellow D			
Cape Sable seaside sparrow	<i>Ammodramus maritimus mirabilis</i>	not listed	decreasing	not listed	Endangered	yes	Not listed	not listed			
Carolina Chickadee	<i>Poecile carolinensis</i>	LC	stable	not listed	not listed	no	9	no			
Carolina Wren	<i>Thryothorus ludovicianus</i>	LC	increasing	not listed	not listed	no	7	no			
Cassin's Finch	<i>Haemorhous cassinii</i>	NT	decreasing	not listed	not listed	yes	13	Yellow D			
Cassin's Kingbird	<i>Tyrannus vociferans</i>	LC	stable	not listed	not listed	no	9	no			
Cassin's Sparrow	<i>Peucaea cassinii</i>	LC	decreasing	not listed	not listed	yes	11	no			
Cassin's Vireo	<i>Vireo cassinii</i>	LC	increasing	not listed	not listed	no	10	no			
Cave Swallow	<i>Petrochelidon fulva</i>	LC	increasing	not listed	not listed	no	9	no			
Cedar Waxwing	<i>Bombycilla cedrorum</i>	LC	increasing	not listed	not listed	no	6	no			
Cerulean Warbler	<i>Setophaga cerulea</i>	VU	decreasing	not listed	not listed	yes	15	Yellow D	Endangered	Endangered	Schedule 1
Chestnut-backed Chickadee	<i>Poecile rufescens</i>	LC	increasing	not listed	not listed	no	12	Yellow D			
Chestnut-collared Longspur	<i>Calcarius ornatus</i>	VU	decreasing	not listed	not listed	yes	15	Yellow D	Endangered	Threatened	Schedule 1
Chestnut-sided Warbler	<i>Setophaga pensylvanica</i>	LC	decreasing	not listed	not listed	no	12	no			
Chihuahuan Raven	<i>Corvus cryptoleucus</i>	LC	stable	not listed	not listed	no	9	no			
Chipping Sparrow	<i>Spizella passerina</i>	LC	increasing	not listed	not listed	no	8	no			
Clark's Nutcracker	<i>Nucifraga columbiana</i>	LC	stable	not listed	not listed	no	11	no			
Clay-colored Sparrow	<i>Spizella pallida</i>	LC	decreasing	not listed	not listed	no	10	no			
Clay-colored Thrush	<i>Turdus grayi</i>	LC	increasing	not listed	not listed	no	8	no			
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>	LC	increasing	not listed	not listed	no	7	no			
Coastal vesper sparrow	<i>Poocetes gramineus affinis</i>	Not assessed at subspecies level							Endangered	Endangered	Schedule 1
Colima Warbler	<i>Oreothlypis crissalis</i>	LC	decreasing	not listed	not listed	yes	16	Yellow R			
Common Grackle	<i>Quiscalus quiscula</i>	NT	decreasing	not listed	not listed	no	9	no			

English Name	Scientific Name	IUCN ¹	Population trend	CITES ²	USFWS ³	BMC ⁴	CCSmax ⁵	Watch List ^{6, 7}	COSEWIC status ⁹	Schedule status ¹⁰	SARA schedule ¹⁰
Common Raven	<i>Corvus corax</i>	LC	increasing	not listed	not listed	no	6	no			
Common Redpoll	<i>Acanthis flammea</i>	LC	decreasing	not listed	not listed	no	7	no			
Common Yellowthroat	<i>Geothlypis trichas</i>	LC	stable	not listed	not listed	no	9	no			
Connecticut Warbler	<i>Oporornis agilis</i>	LC	decreasing	not listed	not listed	no	13	Yellow D			
Cordilleran Flycatcher	<i>Empidonax occidentalis</i>	LC	decreasing	not listed	not listed	no	11	no			
Couch's Kingbird	<i>Tyrannus couchii</i>	LC	increasing	not listed	not listed	no	10	no			
Crescent-chested Warbler	<i>Oreothlypis superciliosa</i>	LC	decreasing	not listed	not listed	no	13	no			
Crimson-collared Grosbeak	<i>Rhodothraupis celaeno</i>	LC	unknown	not listed	not listed	no	16	no			
Crissal Thrasher	<i>Toxostoma crissale</i>	LC	stable	not listed	not listed	no	12	no			
Curve-billed Thrasher	<i>Toxostoma curvirostre</i>	LC	decreasing	not listed	not listed	yes	9	no			
Dark-eyed Junco	<i>Junco hyemalis</i>	LC	stable	not listed	not listed	no	8	no			
Dickcissel	<i>Spiza americana</i>	LC	stable	not listed	not listed	yes	11	no			
Dusky Flycatcher	<i>Empidonax oberholseri</i>	LC	decreasing	not listed	not listed	no	11	no			
Dusky-capped Flycatcher	<i>Myiarchus tuberculifer</i>	LC	decreasing	not listed	not listed	no	9	no			
Eastern Bluebird	<i>Sialia sialis</i>	LC	increasing	not listed	not listed	no	7	no			
Eastern Kingbird	<i>Tyrannus tyrannus</i>	LC	decreasing	not listed	not listed	no	11	no			
Eastern Meadowlark	<i>Sturnella magna</i>	NT	increasing	not listed	not listed	no	11	no	Threatened	Threatened	Schedule 1
Eastern Phoebe	<i>Sayornis phoebe</i>	LC	increasing	not listed	not listed	no	8	no			
Eastern Towhee	<i>Pipilo erythrophthalmus</i>	LC	stable	not listed	not listed	no	11	no			
Eastern Wood-Pewee	<i>Contopus virens</i>	LC	decreasing	not listed	not listed	no	10	no	Special Concern	Special Concern	Schedule 1
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	LC	decreasing	not listed	not listed	no	9	no			
Evening Grosbeak	<i>Coccothraustes vespertinus</i>	VU	decreasing	not listed	not listed	no	13	Yellow D	Special Concern	Special Concern	Schedule 1
Fan-tailed Warbler	<i>Basileuterus lachrymosus</i>	LC	decreasing	not listed	not listed	no	15	yes			
Field Sparrow	<i>Spizella pusilla</i>	LC	decreasing	not listed	not listed	yes	12	no			
Fish Crow	<i>Corvus ossifragus</i>	LC	increasing	not listed	not listed	no	10	no			
Five-striped Sparrow	<i>Amphispiza quinquestriata</i>	LC	stable	not listed	not listed	yes	15	Yellow D			
Flame-colored Tanager	<i>Piranga bidentata</i>	LC	stable	not listed	not listed	no	14	no			
Florida grasshopper	<i>Ammodramus savannarum</i>	not	decreasing	not listed	endangered	yes	Not	not			

English Name	Scientific Name	IUCN ¹	Population trend	CITES ²	USFWS ³	BMC ⁴	CCSmax ⁵	Watch List ^{6, 7}	COSEWIC status ⁹	Schedule status ¹⁰	SARA schedule ¹⁰
sparrow	<i>floridanus</i>	listed					listed	listed			
Florida Scrub-Jay	<i>Aphelocoma coerulescens</i>	VU	decreasing	not listed	Threatened	yes	20	Red			
Fork-tailed Flycatcher	<i>Tyrannus savana</i>	LC	stable	not listed	not listed	no	7	no			
Fox Sparrow	<i>Passerella iliaca</i>	LC	stable	not listed	not listed	no	8	no			
Golden-cheeked Warbler	<i>Setophaga chrysoparia</i>	EN	decreasing	not listed	endangered	yes	19	Red			
Golden-crowned Kinglet	<i>Regulus satrapa</i>	LC	increasing	not listed	not listed	no	8	no			
Golden-crowned Sparrow	<i>Zonotrichia atricapilla</i>	LC	increasing	not listed	not listed	no	9	no			
Golden-crowned Warbler	<i>Basileuterus culicivorus</i>	LC	unknown	not listed	not listed	no	11	no			
Golden-winged Warbler	<i>Vermivora chrysoptera</i>	NT	decreasing	not listed	not listed	yes	16	Red	Threatened	Threatened	Schedule 1
Grace's Warbler	<i>Setophaga graciae</i>	LC	decreasing	not listed	not listed	yes	13	Yellow D			
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	LC	decreasing	not listed	not listed	yes	12	no			
Grasshopper Sparrow	<i>Ammodramus savannarum pratensis</i>	Not assessed at subspecies level							Special Concern	Special Concern	Schedule 1
Gray Catbird	<i>Dumetella carolinensis</i>	LC	stable	not listed	not listed	no	8	no			
Gray Flycatcher	<i>Empidonax wrightii</i>	LC	increasing	not listed	not listed	no	9	no			
Gray Jay	<i>Perisoreus canadensis</i>	LC	decreasing	not listed	not listed	no	8	no			
Gray Kingbird	<i>Tyrannus dominicensis</i>	LC	stable	not listed	not listed	no	12	no			
Gray Vireo	<i>Vireo vicinior</i>	LC	increasing	not listed	not listed	no	14	Yellow R			
Gray-cheeked Thrush	<i>Catharus minimus</i>	LC	unknown	not listed	not listed	no	9	no			
Gray-crowned Rosy-Finch	<i>Leucosticte tephrocotis</i>	LC	stable	not listed	not listed	no	13	no			
Gray-headed Chickadee	<i>Poecile cinctus</i>	LC	decreasing	not listed	not listed	no	9	no			
Great Crested Flycatcher	<i>Myiarchus crinitus</i>	LC	stable	not listed	not listed	no	8	no			
Great Kiskadee	<i>Pitangus sulphuratus</i>	LC	increasing	not listed	not listed	no	5	no			
Greater Pewee	<i>Contopus pertinax</i>	LC	decreasing	not listed	not listed	no	12	no			
Great-tailed Grackle	<i>Quiscalus mexicanus</i>	LC	stable	not listed	not listed	no	5	no			
Green Jay	<i>Cyanocorax yncas</i>	LC	increasing	not listed	not listed	no	11	no			
Green-tailed Towhee	<i>Pipilo chlorurus</i>	LC	stable	not listed	not listed	yes	11	no			
Hammond's Flycatcher	<i>Empidonax hammondii</i>	LC	increasing	not listed	not listed	no	10	no			
Harris's Sparrow	<i>Zonotrichia querula</i>	NT	decreasing	not listed	not listed	no	13	Yellow D			

English Name	Scientific Name	IUCN ¹	Population trend	CITES ²	USFWS ³	BMC ⁴	CCSmax ⁵	Watch List ^{6, 7}	COSEWIC status ⁹	Schedule status ¹⁰	SARA schedule ¹⁰
Henslow's Sparrow	<i>Ammodramus henslowii</i>	LC	increasing	not listed	not listed	yes	14	Yellow R	Endangered	Endangered	Schedule 1
Hepatic Tanager	<i>Piranga flava</i>	LC	unknown	not listed	not listed	no	7	no			
Hermit Thrush	<i>Catharus guttatus</i>	LC	increasing	not listed	not listed	no	6	no			
Hermit Warbler	<i>Setophaga occidentalis</i>	LC	stable	not listed	not listed	no	11	no			
Hoary Redpoll	<i>Acanthis hornemanni</i>	LC	decreasing	not listed	not listed	no	8	no			
Hooded Oriole	<i>Icterus cucullatus</i>	LC	increasing	not listed	not listed	yes	10	no			
Hooded Warbler	<i>Setophaga citrina</i>	LC	increasing	not listed	not listed	no	10	no			
Horned Lark	<i>Eremophila alpestris</i>	LC	decreasing	not listed	not listed	yes	9	no			
Streaked Horned Lark	<i>Eremophila alpestris strigata</i>	Not assessed at subspecies level							Endangered	Endangered	Schedule 1
House Finch	<i>Haemorhous mexicanus</i>	LC	increasing	not listed	not listed	no	6	no			
House Wren	<i>Troglodytes aedon</i>	LC	increasing	not listed	not listed	no	5	no			
Hutton's Vireo	<i>Vireo huttoni</i>	LC	stable	not listed	not listed	no	9	no			
Indigo Bunting	<i>Passerina cyanea</i>	LC	decreasing	not listed	not listed	no	9	no			
Island Scrub-Jay	<i>Aphelocoma insularis</i>	LC	stable	not listed	not listed	yes	16	Yellow R			
Juniper Titmouse	<i>Baeolophus ridgwayi</i>	LC	stable	not listed	not listed	yes	11	no			
Kentucky Warbler	<i>Geothlypis formosa</i>	LC	decreasing	not listed	not listed	yes	14	Yellow D			
Kirtland's Warbler	<i>Setophaga kirtlandii</i>	NT	increasing	not listed	not listed	yes	16	Yellow R	Endangered	Endangered	Schedule 1
Lapland Longspur	<i>Calcarius lapponicus</i>	LC	increasing	not listed	not listed	no	7	no			
Lark Bunting	<i>Calamospiza melanocorys</i>	LC	decreasing	not listed	not listed	yes	12	no	Threatened	Threatened	Schedule 1
Lark Sparrow	<i>Chondestes grammacus</i>	LC	decreasing	not listed	not listed	no	10	no			
Lawrence's Goldfinch	<i>Spinus lawrencei</i>	LC	decreasing	not listed	not listed	yes	14	no			
Lazuli Bunting	<i>Passerina amoena</i>	LC	increasing	not listed	not listed	no	9	no			
Le Conte's Sparrow	<i>Ammodramus leconteii</i>	LC	decreasing	not listed	not listed	yes	12	Yellow D			
Le Conte's Thrasher	<i>Toxostoma lecontei</i>	LC	stable	not listed	not listed	yes	17	Red			
Least Flycatcher	<i>Empidonax minimus</i>	LC	decreasing	not listed	not listed	no	10	no			
Lesser Goldfinch	<i>Spinus psaltria</i>	LC	decreasing	not listed	not listed	no	7	no			
Lincoln's Sparrow	<i>Melospiza lincolni</i>	LC	stable	not listed	not listed	no	9	no			
Loggerhead Shrike	<i>Lanius ludovicianus</i>	NT	decreasing	not listed	not listed	yes	11	no			

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Loggerhead Shrike	<i>Lanius ludovicianus migrans</i>	Not assessed at subspecies level							Non-active	Endangered	Schedule 1
Loggerhead Shrike	<i>Lanius ludovicianus excubitorides</i>	Not assessed at subspecies level							Threatened	Threatened	Schedule 1
Long-billed Thrasher	<i>Toxostoma longirostre</i>	LC	increasing	not listed	not listed	no	12	no			
Louisiana Waterthrush	<i>Parkesia motacilla</i>	LC	increasing	not listed	not listed	yes	12	no	Threatened	Threatened	Schedule 1
Lucy's Warbler	<i>Oreothlypis luciae</i>	LC	stable	not listed	not listed	yes	12	no			
MacGillivray's Warbler	<i>Geothlypis tolmiei</i>	LC	decreasing	not listed	not listed	no	12	no			
Magnolia Warbler	<i>Setophaga magnolia</i>	LC	increasing	not listed	not listed	no	8	no			
Marsh Wren	<i>Cistothorus palustris</i>	LC	increasing	not listed	not listed	yes	7	no			
McCown's Longspur	<i>Rhynchophanes mccownii</i>	LC	decreasing	not listed	not listed	yes	15	Yellow D	Threatened	Threatened	Schedule 1
McKay's Bunting	<i>Plectrophenax hyperboreus</i>	LC	increasing	not listed	not listed	yes	16	Yellow R			
Mexican Chickadee	<i>Poecile sclateri</i>	LC	decreasing	not listed	not listed	no	14	Yellow D			
Mexican Jay	<i>Aphelocoma wollweberi</i>	LC	decreasing	not listed	not listed	no	12	no			
Mountain Bluebird	<i>Sialia currucoides</i>	LC	increasing	not listed	not listed	no	12	no			
Mountain Chickadee	<i>Poecile gambeli</i>	LC	stable	not listed	not listed	no	10	no			
Mourning Warbler	<i>Geothlypis philadelphia</i>	LC	decreasing	not listed	not listed	no	12	no			
Nashville Warbler	<i>Oreothlypis ruficapilla</i>	LC	increasing	not listed	not listed	no	9	no			
Nelson's Sparrow	<i>Ammodramus nelsoni</i>	LC	stable	not listed	not listed	yes	14	Yellow R			
Northern Beardless-Tyrannulet	<i>Camptostoma imberbe</i>	LC	increasing	not listed	not listed	no	10	no			
Northern Cardinal	<i>Cardinalis cardinalis</i>	LC	stable	not listed	not listed	no	5	no			
Northern Mockingbird	<i>Mimus polyglottos</i>	LC	stable	not listed	not listed	no	8	no			
Northern Parula	<i>Setophaga americana</i>	LC	increasing	not listed	not listed	no	8	no			
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	LC	decreasing	not listed	not listed	no	9	no			
Northern Shrike	<i>Lanius excubitor</i>	LC	decreasing	not listed	not listed	no	9	no			
Northern Waterthrush	<i>Parkesia noveboracensis</i>	LC	stable	not listed	not listed	no	9	no			
Northern Wheatear	<i>Oenanthe oenanthe</i>	LC	decreasing	not listed	not listed	no	9	no			
Northwestern Crow	<i>Corvus caurinus</i>	LC	increasing	not listed	not listed	no	9	no			
Nutting's Flycatcher	<i>Myiarchus nuttingi</i>	LC	stable	not listed	not listed	no	13	no			

English Name	Scientific Name	IUCN ¹	Population trend	CITES ²	USFWS ³	BMC ⁴	CCSmax ⁵	Watch List ^{6, 7}	COSEWIC status ⁹	Schedule status ¹⁰	SARA schedule ¹⁰
Oak Titmouse	<i>Baeolophus inornatus</i>	LC	stable	not listed	not listed	yes	15	Yellow D			
Olive Sparrow	<i>Arremonops rufivirgatus</i>	LC	increasing	not listed	not listed	no	12	no			
Olive Warbler	<i>Peucedramus taeniatus</i>	LC	decreasing	not listed	not listed	yes	13	no			
Olive-sided Flycatcher	<i>Contopus cooperi</i>	NT	decreasing	not listed	not listed	yes	13	yes	Special Concern	Threatened	Schedule 1
Orange-crowned Warbler	<i>Oreothlypis celata</i>	LC	increasing	not listed	not listed	no	9	no			
Orchard Oriole	<i>Icterus spurius</i>	LC	stable	not listed	not listed	yes	10	no			
Ovenbird	<i>Seiurus aurocapilla</i>	LC	stable	not listed	not listed	no	9	no			
Pacific Wren	<i>Troglodytes pacificus</i>	LC	unknown	not listed	not listed	no	10	no			
Pacific-slope Flycatcher	<i>Empidonax difficilis</i>	LC	decreasing	not listed	not listed	no	11	no			
Painted Bunting	<i>Passerina ciris</i>	LC	stable	not listed	not listed	yes	11	no			
Painted Redstart	<i>Myioborus pictus</i>	LC	increasing	not listed	not listed	no	13	no			
Palm Warbler	<i>Setophaga palmarum</i>	LC	increasing	not listed	not listed	no	11	no			
Phainopepla	<i>Phainopepla nitens</i>	LC	stable	not listed	not listed	yes	10	no			
Philadelphia Vireo	<i>Vireo philadelphicus</i>	LC	increasing	not listed	not listed	no	10	no			
Pine Grosbeak	<i>Pinicola enucleator</i>	LC	decreasing	not listed	not listed	no	10	no			
Pine Siskin	<i>Spinus pinus</i>	LC	stable	not listed	not listed	no	10	no			
Pine Warbler	<i>Setophaga pinus</i>	LC	increasing	not listed	not listed	no	7	no			
Pinyon Jay	<i>Gymnorhinus cyanocephalus</i>	VU	decreasing	not listed	not listed	yes	14	Yellow D			
Piratic Flycatcher	<i>Legatus leucophaeus</i>	LC	stable	not listed	not listed	no	9	no			
Plumbeous Vireo	<i>Vireo plumbeus</i>	LC	increasing	not listed	not listed	no	13	no			
Prairie Warbler	<i>Setophaga discolor</i>	LC	decreasing	not listed	not listed	yes	13	Yellow D			
Prothonotary Warbler	<i>Protonotaria citrea</i>	LC	decreasing	not listed	not listed	yes	14	Yellow D	Endangered	Endangered	Schedule 1
Purple Finch	<i>Haemorhous purpureus</i>	LC	decreasing	not listed	not listed	yes	9	no			
Purple Martin	<i>Progne subis</i>	LC	stable	not listed	not listed	no	9	no			
Pygmy Nuthatch	<i>Sitta pygmaea</i>	LC	increasing	not listed	not listed	no	12	no			
Pyrrhuloxia	<i>Cardinalis sinuatus</i>	LC	decreasing	not listed	not listed	no	12	no			
Red Crossbill	<i>Loxia curvirostra</i>	LC	stable	not listed	not listed	yes	8	no			
Red Crossbill	<i>Loxia curvirostra percna</i>	Not assessed at subspecies level							Threatened	Threatened	Schedule 1

English Name	Scientific Name	IUCN ¹	Population trend	CITES ²	USFWS ³	BMC ⁴	CCSmax ⁵	Watch List ^{6, 7}	COSEWIC status ⁹	Schedule status ¹⁰	SARA schedule ¹⁰
Red-breasted Nuthatch	<i>Sitta canadensis</i>	LC	increasing	not listed	not listed	no	6	no			
Red-eyed Vireo	<i>Vireo olivaceus</i>	LC	increasing	not listed	not listed	no	6	no			
Red-faced Warbler	<i>Cardellina rubrifrons</i>	LC	decreasing	not listed	not listed	yes	13	no			
Red-throated Pipit	<i>Anthus cervinus</i>	LC	stable	not listed	not listed	no	10	no			
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	LC	decreasing	not listed	not listed	no	8	no			
Rock Wren	<i>Salpinctes obsoletus</i>	LC	decreasing	not listed	not listed	no	11	no			
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	LC	decreasing	not listed	not listed	no	11	no			
Rose-throated Becard	<i>Pachyrhamphus aglaiae</i>	LC	stable	not listed	not listed	yes	11	no			
Ruby-crowned Kinglet	<i>Regulus calendula</i>	LC	increasing	not listed	not listed	no	6	no			
Rufous-backed Robin	<i>Turdus rufopalliat</i>	LC	stable	not listed	not listed	no	10	no			
Rufous-capped Warbler	<i>Basileuterus rufifrons</i>	LC	stable	not listed	not listed	no	13	no			
Rufous-crowned Sparrow	<i>Aimophila ruficeps</i>	LC	decreasing	not listed	not listed	yes	11	no			
Rufous-winged Sparrow	<i>Peucaea carpalis</i>	LC	stable	not listed	not listed	yes	15	Yellow D			
Rusty Blackbird	<i>Euphagus carolinus</i>	VU	decreasing	not listed	not listed	yes	12	no	Special Concern	Special Concern	Schedule 1
Sage Thrasher	<i>Oreoscoptes montanus</i>	LC	decreasing	not listed	not listed	yes	11	no	Endangered	Endangered	Schedule 1
Sagebrush Sparrow	<i>Artemisiospiza nevadensis</i>	LC	decreasing	not listed	not listed	no	12	no			
Saltmarsh Sparrow	<i>Ammodramus caudatus</i>	EN	decreasing	not listed	not listed	yes	19	Red s			
Savannah Sparrow	<i>Passerculus sandwichensis</i>	LC	stable	not listed	not listed	no	8	no			
Savannah Sparrow	<i>Passerculus sandwichensis princeps</i>	Not assessed at subspecies level							Special Concern	Special Concern	Schedule 1
Say's Phoebe	<i>Sayornis saya</i>	LC	increasing	not listed	not listed	no	9	no			
Scarlet Tanager	<i>Piranga olivacea</i>	LC	stable	not listed	not listed	no	11	no			
Scissor-tailed Flycatcher	<i>Tyrannus forficatus</i>	LC	decreasing	not listed	not listed	no	11	no			
Scott's Oriole	<i>Icterus parisorum</i>	LC	decreasing	not listed	not listed	no	13	no			
Seaside Sparrow	<i>Ammodramus maritimus</i>	LC	decreasing	not listed	not listed	yes	14	Yellow R			
Sedge Wren	<i>Cistothorus platensis</i>	LC	increasing	not listed	not listed	yes	7	no			
Shiny Cowbird	<i>Molothrus bonariensis</i>	LC	increasing	not listed	not listed	no	6	no			
Sinaloa Wren	<i>Thryophilus sinaloa</i>	LC	unknown	not listed	not listed	no	13	no			
Slate-throated Redstart	<i>Myioborus miniatus</i>	LC	stable	not listed	not listed	no	11	no			

English Name	Scientific Name	IUCN ¹	Population trend	CITES ²	USFWS ³	BMC ⁴	CCSmax ⁵	Watch List ^{6, 7}	COSEWIC status ⁹	Schedule status ¹⁰	SARA schedule ¹⁰
Smith's Longspur	<i>Calcarius pictus</i>	LC	stable	not listed	not listed	no	13	no			
Snow Bunting	<i>Plectrophenax nivalis</i>	LC	decreasing	not listed	not listed	no	8	no			
Song Sparrow	<i>Melospiza melodia</i>	LC	stable	not listed	not listed	yes	8	no			
Spotted Towhee	<i>Pipilo maculatus</i>	LC	stable	not listed	not listed	yes	8	no			
Sprague's Pipit	<i>Anthus spragueii</i>	VU	decreasing	not listed	not listed	yes	14	Yellow D	Threatened	Threatened	Schedule 1
Steller's Jay	<i>Cyanocitta stelleri</i>	LC	increasing	not listed	not listed	no	11	no			
Streak-backed Oriole	<i>Icterus pustulatus</i>	LC	stable	not listed	not listed	no	10	no			
Sulphur-bellied Flycatcher	<i>Myiodynastes luteiventris</i>	LC	stable	not listed	not listed	no	11	no			
Summer Tanager	<i>Piranga rubra</i>	LC	stable	not listed	not listed	yes	9	no			
Swainson's Thrush	<i>Catharus ustulatus</i>	LC	unknown	not listed	not listed	no	10	no			
Swainson's Warbler	<i>Limnothlypis swainsonii</i>	LC	increasing	not listed	not listed	yes	13	no			
Swamp Sparrow	<i>Melospiza georgiana</i>	LC	increasing	not listed	not listed	no	6	no			
Tamaulipas Crow	<i>Corvus imparatus</i>	LC	stable	not listed	not listed	no	15	no			
Tennessee Warbler	<i>Oreothlypis peregrina</i>	LC	stable	not listed	not listed	no	9	no			
Thick-billed Kingbird	<i>Tyrannus crassirostris</i>	LC	increasing	not listed	not listed	no	12	no			
Townsend's Warbler	<i>Setophaga townsendi</i>	LC	stable	not listed	not listed	no	10	no			
Tree Swallow	<i>Tachycineta bicolor</i>	LC	stable	not listed	not listed	no	10	no			
Tricolored Blackbird	<i>Agelaius tricolor</i>	EN	decreasing	not listed	not listed	yes	18	Red			
Tropical Kingbird	<i>Tyrannus melancholicus</i>	LC	increasing	not listed	not listed	no	4	no			
Tropical Parula	<i>Setophaga pitaiyumi</i>	LC	increasing	not listed	not listed	yes	10	no			
Tufted Flycatcher	<i>Mitrephanes phaeocercus</i>	LC	stable	not listed	not listed	no	13	no			
Tufted Titmouse	<i>Baeolophus bicolor</i>	LC	increasing	not listed	not listed	no	7	no			
Varied Bunting	<i>Passerina versicolor</i>	LC	stable	not listed	not listed	yes	13	no			
Varied Thrush	<i>Ixoreus naevius</i>	LC	decreasing	not listed	not listed	no	12	no			
Veery	<i>Catharus fuscescens</i>	LC	decreasing	not listed	not listed	yes	12	no			
Verdin	<i>Auriparus flaviceps</i>	LC	stable	not listed	not listed	yes	12	no			
Vermilion Flycatcher	<i>Pyrocephalus rubinus</i>	LC	decreasing	not listed	not listed	no	5	no			
Vesper Sparrow	<i>Poocetes gramineus</i>	LC	decreasing	not listed	not listed	yes	11	no			

English Name	Scientific Name	IUCN ¹	Population trend	CITES ²	USFWS ³	BMC ⁴	CCSmax ⁵	Watch List ^{6, 7}	COSEWIC status ⁹	Schedule status ¹⁰	SARA schedule ¹⁰
Violet-green Swallow	<i>Tachycineta thalassina</i>	LC	increasing	not listed	not listed	no	9	no			
Virginia's Warbler	<i>Oreothlypis virginiae</i>	LC	decreasing	not listed	not listed	no	14	Yellow D			
Warbling Vireo	<i>Vireo gilvus</i>	LC	increasing	not listed	not listed	no	9	no			
Western Bluebird	<i>Sialia mexicana</i>	LC	increasing	not listed	not listed	no	9	no			
Western Kingbird	<i>Tyrannus verticalis</i>	LC	increasing	not listed	not listed	no	9	no			
Western Meadowlark	<i>Sturnella neglecta</i>	LC	decreasing	not listed	not listed	no	10	no			
Western Tanager	<i>Piranga ludoviciana</i>	LC	increasing	not listed	not listed	no	9	no			
Western Wood-Pewee	<i>Contopus sordidulus</i>	LC	decreasing	not listed	not listed	no	11	no			
White Wagtail	<i>Motacilla alba</i>	LC	stable	not listed	not listed	no	7	no			
White-breasted Nuthatch	<i>Sitta carolinensis</i>	LC	increasing	not listed	not listed	no	6	no			
White-collared Seedeater	<i>Sporophila torqueola</i>	LC	increasing	not listed	not listed	yes	6	no			
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>	LC	stable	not listed	not listed	no	8	no			
White-eyed Vireo	<i>Vireo griseus</i>	LC	increasing	not listed	not listed	no	8	no			
White-throated Sparrow	<i>Zonotrichia albicollis</i>	LC	stable	not listed	not listed	no	9	no			
White-throated Thrush	<i>Turdus assimilis</i>	LC	decreasing	not listed	not listed	no	13	no			
White-winged Crossbill	<i>Loxia leucoptera</i>	LC	decreasing	not listed	not listed	no	7	no			
Willow Flycatcher	<i>Empidonax traillii</i>	LC	decreasing	not listed	not listed	yes	11	no			
Wilson's Warbler	<i>Cardellina pusilla</i>	LC	decreasing	not listed	not listed	no	10	no			
Winter Wren	<i>Troglodytes hiemalis</i>	LC	unknown	not listed	not listed	no	8	no			
Woodhouse's Scrub Jay	<i>Aphelocoma woodhouseii</i>	LC	stable	not listed	not listed	no	9	no			
Wood Thrush	<i>Hylocichla mustelina</i>	NT	decreasing	not listed	not listed	yes	14	Yellow D	Threatened	Threatened	Schedule 1
Worm-eating Warbler	<i>Helmitheros vermivorum</i>	LC	increasing	not listed	not listed	yes	12	no			
Wrentit	<i>Chamaea fasciata</i>	LC	stable	not listed	not listed	no	14	Yellow D			
Yellow Grosbeak	<i>Pheucticus chrysopheplus</i>	LC	decreasing	not listed	not listed	no	14	no			
Yellow Warbler	<i>Setophaga petechia</i>	LC	stable	not listed	not listed	no	8	no			
Yellow-bellied Flycatcher	<i>Empidonax flaviventris</i>	LC	increasing	not listed	not listed	no	9	no			
Yellow-billed Magpie	<i>Pica nuttalli</i>	VU	stable	not listed	not listed	yes	16	Yellow D			
Yellow-breasted Chat	<i>Icteria virens</i>	LC	stable	not listed	not listed	no	10	no			

English Name	Scientific Name	IUCN ¹	Population trend	CITES ²	USFWS ³	BMC ⁴	CCSmax ⁵	Watch List ^{6, 7}	COSEWIC status ⁹	Schedule status ¹⁰	SARA schedule ¹⁰
Yellow-breasted Chat	<i>Icteria virens auricollis</i>	Not assessed at subspecies level							Endangered	Endangered	Schedule 1
Yellow-breasted Chat	<i>Icteria virens virens</i>	Not assessed at subspecies level							Endangered	Endangered	Schedule 1
Yellow-eyed Junco	<i>Junco phaeonotus</i>	LC	decreasing	not listed	not listed	no	11	no			
Yellow-faced Grassquit	<i>Tiaris olivaceus</i>	LC	increasing	not listed	not listed	no	9	no			
Yellow-green Vireo	<i>Vireo flavoviridis</i>	LC	stable	not listed	not listed	no	11	no			
Yellow-headed Blackbird	<i>Xanthocephalus xanthocephalus</i>	LC	increasing	not listed	not listed	no	9	no			
Yellow-rumped Warbler	<i>Setophaga coronata</i>	LC	unknown	not listed	not listed	no	6	no			
Yellow-throated Warbler	<i>Setophaga dominica</i>	LC	increasing	not listed	not listed	no	10	no			

Appendix II: SAFE NAS Program Partner Activities

January – June 2020

1. Akron Zoological Park

- Audubon Christmas bird count; Summer bird count
- Lights out Akron/Canton – volunteers and financial support
- Collision monitoring and prevention at zoo
- House, breed, display native songbirds
- North American Songbird Working Group/PACCT TAG Steering Committee
- Involvement in C2S2 bird conservation initiatives
- Participation in national AZA surveys regarding native songbirds
- Partnerships with local wildlife rehabilitation centers
- SAFE NAS Steering Committee

2. Assiniboine Park Zoo

- Installation and monitoring of artificial chimney for chimney swifts
- Volunteer-run interpretive station on songbird conservation
- Host Migratory Bird Day celebration in May
- Tree swallow nest boxes, potential purple martin house in near future
- Collision mitigation on windows (variety of window specific treatments)
- Collision documentation (pre-post mitigation)
- Contribute to rusty blackbird genomics research by sampling Northern Manitoba birds

3. Audubon Aquarium of the Americas

- Large walk through Amazon exhibit is made of Bird Safe glass
- Working on a Motus tower tracking station and plan to tie that into native songbird migration patterns in native species gallery

4. Birmingham Zoo

- Annual Tom Imhoff Beginner Bird Walk and Great Backyard Bird Count participant
- Annual Spring, Fall, Christmas Bird Count
- Partner with Alabama Audubon
- Chimney Swift tower monitoring, education
- Window Collision Monitoring Birmingham, Alabama
- Collision monitoring, mitigation on habitat glass
- Bird Safe Birmingham (to begin 2020)
- Planting and housing for pollinators and monarch which is beneficial to birds
- Hummingbird feeders and preferred plants in landscaping

5. Bramble Park Zoo

- Maintaining pollinating gardens and native plantings for habitat
- Multi species tree plantings and maintenance on grounds
- Licensed migratory bird rehabilitation facility
- Two winter feeding sites
- Collision mitigation on windows-bird outlines

6. Brevard Zoo

- Collision prevention at zoo

- Catio and graphics encouraging Zoo guests to keep domestic cats indoors
- Florida Scrub Jay translocation and monitoring/banding in Brevard County, FL
 - Member of the Central Atlantic Coastal Ridges Working Group (CACRWG), a Florida Scrub Jay focused group
 - Partner with CACRWG and Bob Lacey to produce a Florida Scrub Jay PVA (population viability analysis)
 - Social media blogs on window strikes and local conservation efforts with scrub jay
- Partner with USFWS on the critically endangered Florida Grasshopper Sparrow program
- Provide guided birding tours on local conservation lands
- SAFE NAS Steering Committee



Brevard Zoo catio interpretive, photo by Michelle Smurl

7. Columbus Zoo

- Motus station on zoo grounds
- Provide grant money to local Lights Out program
- Staff volunteer in the Columbus Lights Out program
- Bluebird boxes on zoo grounds
- Hold annual World Migratory Bird Day events
- Collision mitigation on windows; document collisions on grounds
- Chair North American Songbird Working Group, an initiative of the AZA PaACT TAG
- C2S2 involvement
- House, breed, display NA songbirds
- Coordinating a national survey with AZA zoos and aquariums to learn what people understand about songbirds
- Partnership with Ohio Wildlife Center
- Provide grants to local, national, and international bird projects
- Wetland creation and restoration on Zoo property
- Purple martin nest monitoring on zoo grounds
- Backyard bird count; Christmas bird count
- Audubon Cooperative Sanctuary certification at Safari Golf – including bird habitat creation and maintenance
- SAFE NAS Co-Chair

8. Cosley Zoo

- Train individuals to participate in the Great Backyard Bird Count
- House non-releasable native songbirds

9. Detroit Zoological Society

- Member of Kirtland Warbler Alliance

- Increased planting of native vegetation on Zoo property, including Backyard for Wildlife
- Setting up one Motus station
- Serve as AZA North American Songbird Working Group bird collision advisor
- Managing bird feeding areas at the zoo with educational interpretation (ongoing project in conjunction with Urban Bird Treaty)
- Collision mitigation at several habitats at zoo
- Tracking of bird collision on grounds since 2013 – present
- Global Bird Collision week team/use of GBMapper year round
- Graphics, blogs and in house pamphlets on zoo grounds covering bird collision
- Sell bird collision products in gift shop
- Off-site bird collision consulting
- Detroit Audubon Safe Passage
- World Migratory Bird Day
- National Bird Day
- Backyards for birds habitat on zoo grounds
- Provide on-site bird collision training for all employees/orientation
- SAFE NAS Steering Committee



A selection of bird friendly products in the Detroit Zoo gift store, photo by Bonnie Van Dam

10. Fort Wayne Children's Zoo

- Manage network of four Motus stations across northeast Indiana
- Serve as coordinator for Pigeon River Christmas Bird Count
- Fort Wayne Children's Zoo as "hotspot" on eBird
- Setting up bird feeding areas in zoo with educational interpretation for 2020
- Serve as North American Songbird Working Group/PACCT TAG veterinary advisor
- North American Songbird Working Group/PACCT TAG Steering Committee
- SAFE NAS Steering Committee, Treasurer

11. Lee Richardson Zoo

- Volunteers involved in submitting data to eBird and other citizen science projects
- Protecting native habitat on Zoo grounds through a Kansas Nature Walk area
- Set up Bird Feeding area to participate in Project Feeder Watch with volunteers and visitors in 2020

12. Lion Country Safari

- Celebrate World Migratory Bird Day on social media
- MOTUS tower on zoo grounds
- In the beginning stages of assisting in the *ex-situ* breeding & release of Florida grasshopper sparrows with USFWS
- Planning messaging on the importance of keeping cats indoors and bird strike messaging on-grounds

13. Lincoln Park

- Monitor collisions and bird strikes, record species and counts at high-impact areas
- Internal (emails) and external communications (SM/FB blogs) to inform people of steps to take during spring/fall migration to help migrating birds passing through the zoo and Chicago
- Collision mitigation after high strike areas identified
- Raise awareness through our social media platforms about World Migratory Bird Day
- Native habitat increased around the zoo and maintained by horticulture team
- Messaging on the importance of keeping cats indoors
- SAFE NAS Steering Committee

14. Los Angeles Zoo

- Installed six bird gardens throughout zoo with signage sharing ideas on how to make your yard bird friendly and explaining the perils that our migratory birds face.
- Installed anti-strike decals on zoo buildings in areas known to have strikes
- Participate in World Migratory Bird Day with activities for kids and information on the plight of North American songbirds
- Installed six bird gardens throughout zoo with signage sharing ideas on how to make your yard bird friendly and explaining the perils that our migratory birds face.
- Installed anti-strike decals on zoo buildings in areas known to have strikes
- Participate in World Migratory Bird Day with activities for kids and information on the plight of North American songbirds

15. Moody Gardens

- Participate in 2 Audubon Christmas Bird Counts in Galveston
- Participate in Birdwatcher's Digest Big Sit (October)
- Participate in Great Backyard Bird Count (February)
- Collision monitoring and mitigation on Moody Gardens property since 2013
- Promote and advocate "Lights Out for Birds" locally through Houston Audubon Society
- Partner with Galveston Island Nature Tourism Council, Houston Audubon Society, Galveston Ornithological Society, Gulf Coast Bird Observatory and American Bird Conservancy in local bird conservation efforts
- eBird hotspots for Moody Gardens property (256 species/940 checklists) and Moody Gardens Golf Course (154 species/36 checklists)
- Working to achieve Audubon certification for Moody Gardens Golf Course (recognizing this isn't associated with National Audubon)
- Planning 2020 World Migratory Bird Day activities for members and through social media.
- Working on Galveston Island Nature Tourism Council (GINTC) initiative to recognize Galveston, Texas as a Bird City through Texas Parks and Wildlife Department
- Working with GINTC to develop a "Hotter than Hell Big Day" in Galveston to promote birding at the statistical worst time of year for both bird diversity (eBird species in Galveston County) and bird activity (eBird checklists in Galveston County)

16. New York State Zoo at Thompson Park
 - Bird strike decals to deter collisions
 - World Migratory Bird Day
17. North Carolina Aquarium on Roanoke Island
 - Working with exhibits department to provide list of NASB for Colored Pencil Society/Raleigh-Durham Chapter--they are providing an exhibit of their work in July 2020
 - Presenting Gardening for Songbirds and Others in April 2020 as part of our 'Beyond Do One Thing' series
 - Expanding pollinator garden to include information on songbirds
 - Grounds crew using "green" pesticide/fertilizer and maintaining natural edges whenever possible
 - SAFE NAS Education Committee
18. North Carolina Aquarium at Pine Knoll Shores
 - Planting for Songbirds (Pollinator Garden) – Native food sources displayed on grounds with educational interpretation
 - Working on collision mitigation on various windows throughout Aquarium
 - Celebrating Migratory Bird Day and National Bird Day on social media with blasts promoting and encouraging actions to help songbirds
 - Free-Flight Bird Show Education (Collisions and Feral Cats educational messaging)
 - Earth Hour – Lights Out 2020
 - Christmas Bird Count 2020
 - Painted bunting Counts and Surveys
19. North Carolina Zoo
 - Collision monitoring and prevention
 - Display native songbirds
 - Construction of Chimney Swift Tower on site-spring 2020
 - AZA PaCCT TAG Steering Committee Member
 - Avian surveys of NC Zoo Society land tracts
 - Birds and Blooms Event-provides info on how to prevent bird window collisions
 - Great Backyard Bird Count information/Zoo School students
 - Adding pollinator gardens to the zoo, use of native plants throughout the zoo.
 - VHS Wildlife Rehabilitation Center at the NC Zoo-passerine rehab. Post release banding of birds to monitor success of program.
 - Works with BRaZN (Bird Rehabilitators and Zoo Network)-collaboration btw USFW, AZA, and Rehabbers to improve care and planning of native songbirds in both short and long term human care.
20. Oglebay Good Zoo
 - Licensed Federal Migratory Bird Rehabilitation Facility
 - Planting for Pollinators (1/4 acre pollinator garden installed within zoo) - will add songbird specific signage within pollinator garden as well as appropriate birdhouses
 - Acquire and install materials to mark windows in zoo main building as well as Amazon, Red River hog, cheetah, and snow leopard habitats to prevent bird collisions

- Create signage to be installed at raptor rehabilitation habitats to discuss factors that impact NAS conservation and communicate rehabilitation program to guests
- Create NAS program bullet points in collaboration with SAFE NAS priorities to incorporate into raptor/bird specific education programs, Sunday Funday resort programs, avian encounter and all cat encounter programs
- Create signage to be installed at WV Conservation Center about songbird conservation in WV and signage to be installed at bobcat habitat focusing on maintaining domestic cats indoors
- Create signage to be installed at aforementioned habitats with windows to educate guests about preventing bird collisions at the zoo and at home
- Create digital and hard signage to promote Bird Friendly® coffee at zoo and resort concession stands/restaurants
- Work with retail contractor to encourage sale of Bird Friendly® coffee and collision prevention materials in resort retail outlets or negotiate option to be able to sell from zoo concessions
- Work with food and beverage contractor to offer only Bird Friendly® coffee in zoo and resort concession stands/restaurants
- Conservation apprentice participated in Backyard Bird Count in 2019
- Create project for WLU Zoo Science Ornithology course to develop and implement an NAS management plan for the undeveloped areas (30 acres) of zoo
- Hire and assign conservation apprentice to conduct baseline surveys of undeveloped areas of zoo to compare success of management of this area for NAS
- Reach out to WVDNR and USFWS to discuss potential NAS outreach/research opportunities at Casselman's and Bear Rocks Lake WMA's and at the local islands that are part of the Ohio River Islands National Wildlife Refuge.

21. Oklahoma City Zoo

- Participated in the Great Backyard Bird Count in 2018 and 2019. Promoted as a public event and guests were invited to participate in the count
- Provide the following educational messaging about how to help native birds: 1) plant native, 2) keep cats indoors, 3) prevent window collisions, 4) join citizen science efforts, 5) provide bird feeders and water sources
- Use collision prevention film and tape on glass in the Zoo. Keep a record of bird collisions and address problem windows by putting up film or tape
- Zoo staff assist with an annual winter bird survey led by the Oklahoma Department of Wildlife Conservation biologists in various parts of the state
- Provide significant annual financial support to The Nature Conservancy, Oklahoma which manages 12 preserves in the state that provide habitat for native and migratory birds
- Providing financial support to the Sutton Avian Research Center in Oklahoma to complete a breeding bird atlas survey

22. Reid Park Zoo

- Native plant/pollinator garden
- Participated in bird window collision study

- Partnership with local wildlife rehabilitation center
- Nest boxes for Lucy's warblers and flycatchers (in progress)
-
- On-grounds graphics informing guests how to protect native songbirds
- Social media posts and blogs about protecting native songbirds
- Partnership with local Audubon chapter
- World Migratory Bird Day social media posts
- Staff participation in Great Backyard Bird Count on zoo grounds

23. Riverbanks Zoo & Garden

- Motus array on-site
- Deployment of Motus array and nano-tagging effort at Wildsumaco, Ecuador in 2020
- Monitor for bird window strikes and deploy window decals, as indicated
- Increasingly our camp and homeschool programs are focused on native species and activities actions to support native birds
- Party for the Planet (Birds Activity)
- Endangered Species Day Event (Bird Activity)
- World Migratory Bird Day Event
- Bird Interpretive Carts and Chats planned for Birdhouse coming 2020
- Riverbanks' Chapter of AAZK maintains bird nesting boxes and graphics onsite to provide habitat for native birds, and to educate visitors about native birds



A motus tower at Riverbanks Zoo, photo by Ed Diebold

24. Saint Louis Zoo

- Motus tracking station (launching in 2020)
- Christmas Bird Count
- Window collision mitigation
- World Migratory Bird Day Events
- AZA North American Songbird Working Group
- AZA PaCCT TAG Steering Committee
- St. Louis Cats and Birds Coalition
- Planting native initiatives
- Citizen science programs
- Lights Out (launching April 2020)
- SAFE NAS Steering Committee
- SAFE NAS Education Advisor

25. Smithsonian's National Zoo & Conservation Biology Institute

- Monitor bird strikes on zoo grounds; coordinate volunteer program
- C2S2 (Conservation Center for Species Survival) songbird advisor

- House, breed, display native songbirds
- North American Songbird Working Group (an initiative of the AZA PaCCT TAG) member
- SAFE NAS Co-Chair
- SAFE NAS Secretary

Smithsonian Migratory Bird Center

- Native songbird research including migration, full annual cycles
- Bird Friendly® coffee founder, pioneer in “Wildlife-Friendly” food certification
- Bridging the Americas (cross-cultural environmental education program that partners classes in grades 2 through 4 in Maryland, Virginia, and Washington, D.C. with classes in Latin America)
- Hold annual World Migratory Bird Day/Wildlife Migration Day events
- Motus station deployed at Front Royal campus
- Bluebird trail and monitor cavity nesting, breeding year round
- Purple martin nest boxes, monitoring



Wood thrush nesting at the National Zoo, photo by Kathy Brader

26. The Wilds

- Motus station operational
- Bluebird nest boxes installed on property
- Christmas Bird Count
- Grassland bird monitoring/research
- Wetland and forest restoration
- Loggerhead shrike habitat modeling in partnership with the Loggerhead shrike working group of C2S2
- SAFE NAS Steering Committee

27. Toronto Zoo

- Ontario Eastern Loggerhead Shrike Recovery Team member (shrikes bred onsite for release)
- Motus Station onsite
- World Migratory Bird Day Event
- Window collision mitigation (in progress)
- Wetland restoration onsite (aimed at turtles and Trumpeter Swans, but does benefit songbirds too)
- SAFE NAS Steering Committee



Loggerhead shrike, photo by Eric Peterson

28. Tracy Aviary

- Christmas Bird Count; Great Backyard Bird Count
- Lights Out Salt Lake

- Year-round bird monitoring studies at 12 Salt Lake County study sites (including several IMBCR overlay projects)
- Rosy-finch Abundance and Distribution Study
- Nest Box Monitoring at Alta Ski Area
- Coordinate Utah's North American Breeding Bird Survey Volunteers
- Salt Lake Avian Collision Survey (SLACS) in downtown Salt Lake City
- House and display native songbirds; signage about songbird conservation
- Provide annual grants for avian conservation through the Aviary's Conservation Fund
- Collision prevention and bird-friendly building design at the Aviary
- Urban bird festival
- Assist Utah Division of Wildlife in Yellow-billed Cuckoo surveys in Desolation Canyon

29. Zoo Atlanta

- Daily eBird Recording
- Christmas Bird Count
- Great Backyard Bird Count
- Native Bird & Pollinator Garden Onsite
- Window Strike Prevention Initiative
- World Migratory Bird Day Events
- Staff & Zoo Grant Funded Participation at Local Bird Banding Stations
- Motus Station (in the process of being installed)
- Audubon Certified Wildlife Area (in the process of being certified)

30. Zoo Miami

- Motus Station operational
- Christmas Bird Count
- Window collision mitigation
- World Migratory Bird Day events
- SAFE NAS Steering Committee

Appendix III: SAFE NAS Endorsement Policy

Endorsements

North American Songbird (NAS) SAFE supports North American songbird conservation through collaborating with partners by providing subject-matter expertise and financial and material contributions. SAFE NAS recognizes that there are far more songbird projects throughout the species' ranges than its member institutions can possibly support. One way to increase SAFE NAS's ability to advance North American songbird conservation is through endorsing projects that align with the objectives of the NAS action plan. SAFE NAS recognizes that some individuals or organizations, who may or may not be SAFE NAS partners, may request SAFE NAS endorsement as a means of providing legitimacy to their work and for use in leveraging project funds. SAFE NAS is pleased to endorse projects led by those who have the passion and demonstrated ability to further North American songbird conservation in range countries.

Process

1. An information package from the requestor must be sent to the SAFE NAS Coordinator(s).
2. The package must include:
 - a. the requestor's contact information
 - b. statement justifying the request for endorsement
 - c. description of at least two years of the requestors' experience with North American songbird conservation
 - d. a letter of support for the requestor. This may come from a government, non-government organization, community leader, or SAFE NAS institution
 - e. the requestor's CV
 - f. copies of any permits
 - g. assurance that animal welfare is not compromised by the project. If the project includes invasive research, a letter from the requestors' animal care and use committee approving the research must be included.
3. The SAFE NAS Coordinator(s) will review the package, contact the requestor if anything is missing, and send the final package to the members of the SAFE NAS Steering Committee.
4. The potential endorsement will be discussed on a SAFE NAS Steering Committee call or meeting.
5. The SAFE NAS Coordinator(s) will call for a vote.
6. SAFE NAS Steering Committee members will vote online. They may also express their justification for approval or non-approval to the SAFE NAS Coordinator(s).
7. A simple majority of the voting SAFE NAS Steering Committee members is needed for endorsement.
8. The SAFE NAS Coordinator(s) will contact the requestor with a decision within 1 month.

Use of Endorsement

1. Use of the SAFE NAS logo must comply with AZA policy.
2. Endorsement is valid for two years from the date of approval.
3. An endorsement may be extended upon a written request. The requestor must include the information listed in the process as described above as well as a one-page report on the progress of the project and future direction.
4. The endorsement may be reviewed or revoked at any time by SAFE NAS if there is a reasonable cause to doubt the integrity of the requestor, failure to meet goals, or at the request of a SAFE NAS member or one of the project leaders.
5. Endorsement is at the Project level. While the requestor's knowledge, abilities, and history in North American songbird conservation are considered in the decision, endorsements are provided on a project by project basis.

Appendix IV: SAFE NAS Social Media Plan

SAFE North American Songbird Social Media

Hashtag #SAFESongbirds

Please use the #SAFESongbirds hashtag on all social media posts related to North American Songbird SAFE.

Posts

Below are posts related to each objective of North American Songbird SAFE. They include the keywords we would like to use to track social media metrics. If you write your own post please try to include the keyword that relates to your post for tracking.




Photos

Use any of the photos with SAFE logos from the SAFE Social Media Photos folder.



SAFE Objective	Keyword	Posts	Additional hashtags in use regarding this issue
Minimize bird collisions with glass at AZA facilities and encourage visitors to adopt best practices.	windows	Make windows SAFE for birds. Many birds collide with windows during migration because they can't see glass and try to fly through it. Close your blinds, turn off your lights, or add decals to your windows. <i>#SAFESongbirds</i>	
AZA Program Partner Institutions adopt effective roaming cat messaging and practices.	cats	Keep birds SAFE from outdoor cats . Cats kill 1 billion birds per year and face added risks outside. Catio's are a great way to keep cats and birds safe and healthy when outside. <i>#SAFESongbirds</i>	#CatsIndoors #WildlifeApproved #OneHealth
Preserve and build native habitats where possible within AZA facilities and in the communities they serve.	native plants	Create SAFE habitats for birds by planting native plants . Local birds use native plants because native plants provide the food and shelter needed for the region. <i>#SAFESongbirds</i> Save money and time by replacing your lawn with native plants . Once established, native plants require no fertilizer, fewer pesticides, and less water, and your local birds will thrive! <i>#SAFESongbirds</i>	

Reduce contaminants that affect North American songbirds.	pesticides, plastics	<p>Help keep contaminants safely out of habitats by reducing plastic and pesticide use. Toxins meant for insects accumulate in birds as they eat those insects, making them sick. Avoiding chemical use is a great way to keep you and birds safe and healthy. <i>#SAFESongbirds</i></p> <p>Keep habitats SAFE for birds by reducing pesticide use. Toxins meant for insects accumulate in birds and make them sick. Reduce chemical use to keep birds and you safe and healthy. <i>#SAFESongbirds</i></p> <p>Keep habitats SAFE for birds by reducing plastic use. Many birds can become trapped in plastic waste, especially fishing line. Using less plastic keeps habitats cleaner and safe for everyone that uses them. <i>#SAFESongbirds</i></p>	
Use Bird Friendly® certified coffee.	coffee	<p>Buy Bird Friendly certified coffee to keep winter habitats SAFE for birds. Many birds we see here in summer overwinter in Central and South America, and Bird Friendly coffee farms maintain their forest habitat. <i>#SAFESongbirds</i> s.si.edu/BuyBF</p> <p>Even from home, a simple change can make a global impact. When you <i>#DrinkBirdFriendly</i> certified coffee, you help save critical bird habitat in Central and South America. To find a store or café near you, or have it shipped to you, visit s.si.edu/BuyBF <i>#SAFESongbirds</i></p>	Smithsonian Bird Friendly Program uses <i>#DrinkBirdFriendly</i>
Promote and participate in citizen science.	citizen science	Help scientists track birds by submitting observations to citizen science projects using eBird. Observation data helps scientists detect changes in bird populations. There are over 10,000 bird species in the world---that's a lot of species to monitor! <i>#SAFESongbirds</i>	
Reduce North American songbird trafficking.	trafficking	Keep bird populations SAFE from illegal trafficking by reporting native birds for sale. Many songbird species are trapped and sold illegally, desired for their bright colors and use in song competitions. <i>#SAFESongbirds</i>	

<p>Sample Facebook/Instagram Post</p> 	<p>Sample Twitter Post</p> 
<p>Keep bird populations SAFE from illegal trafficking by reporting native birds for sale. Many songbird species are trapped and sold illegally, desired for their bright colors and use in song competitions. #SAFESongbirds</p> 	<p>Keep habitats SAFE for birds by reducing pesticide use. Toxins meant for insects accumulate in birds and make them sick. Reduce chemical use to keep birds and you safe and healthy. #SAFESongbirds</p>  <p>Tag people</p> <p>         </p>

SAFE NAS Social Media Monthly posts

January: Education

February: Citizen Science, Cats

March: Cats, Habitats

April: Habitats, pesticides, window strikes

May: Bird strikes, Feeders

June: Bird Friendly Coffee/chocolate

July: Plastic Free July

August: Cats, Window strikes

September: Window strikes, feeders / Native Plants

October: Native Plants, trees and shrubs/ Seed collecting

November: Bird Friendly coffee, holiday gift

December: Citizen Science, Christmas Bird Count

Additional Outreach Toolkits and Resources recommended by SAFE North American Songbird

- Smithsonian Institution – Bird Friendly Social Toolkit:
https://www.dropbox.com/s/y0kwf98r6hu7d10/BF%20Social%20Toolkit_041420.zip?dl=0
- World Migratory Bird Day Resources: <https://www.migratorybirdday.org/resources/>
- 3billionbirds.org Resources: <https://cornell.app.box.com/v/3BillionBirds>
- American Bird Conservancy: <https://abcbirds.org/get-involved/bird-friendly-life/>

Videos to share from 3billionbirds.org

Seven Simple Actions to Help Birds

- Drink Shade-Grown Coffee
<https://www.facebook.com/cornellbirds/videos/440517129896477/>
- Keep Cats Indoors
<https://www.facebook.com/cornellbirds/videos/714917655691861/>
- Use Native Plants
<https://www.facebook.com/cornellbirds/videos/2129379690691307/>
- Do Citizen Science
<https://www.facebook.com/cornellbirds/videos/2397080030551376/>
- Make Windows Safer
<https://www.facebook.com/cornellbirds/videos/2288902837887108/>
- Avoid Pesticides
<https://www.facebook.com/cornellbirds/videos/2469339979849223/>

North American Songbird SAFE Partners

