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**Before the Committee on Natural Resources
Subcommittee on Fisheries, Wildlife and Oceans**

Going, Going, Gone? An Assessment of the Global Decline in Bird Populations

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Madam Chairwoman and Members of the Subcommittee:

Thank you for the opportunity to testify today regarding the alarming trends in global bird populations. I commend you for holding this important hearing.

National Audubon Society has documented a truly alarming trend. More than 100 of America's most common birds have declined significantly over the past 40 years. Last year, we issued a State of the Birds report that focused on the 20 common bird species that have lost more than 50% of their population in the last 40 years. Almost half of the common species for which population trends are known are in decline. This result is surprising. We know that there are rare and endangered species, but most of us think of the common birds we see so often in our backyards and local parks as invulnerable. We now know that is not the case.

We used two continent-wide sources of data for this analysis – the Breeding Bird Survey, run by the U.S. Geological Survey, and Audubon's Christmas Bird Count. Together, these sources of information provide data on population trends for 550 of North America's 700 species and provide especially good information for most of our common birds. America's best field observers of birds participate in both of these surveys; the data are analyzed by professional ornithologists and statisticians. We defined a common bird as any species with more than 500,000 individuals and with a range size of greater than 1 million square kilometers (Texas is 690,000 square kilometers).

Of the roughly 700 bird species in the United States, over half (370) are common birds. Of these, 119 have lost at least 20% of their population over the past 40 years, and 159 are stable or are increasing. For the remaining birds, either their trends are so close to zero that we can't be sure if they are decreasing, stable, or increasing, or these two survey techniques can not measure their status.

THE DECLINE OF COMMON GRASSLAND BIRDS

Many of these 20 common species that have declined by more than 50% over the last 40 years prefer grassland or shrubland habitats. These include Northern Bobwhite Quail, Eastern Meadowlark, Loggerhead Shrike, Snow Bunting, Horned Lark, and four species of sparrows – Field, Grasshopper, Black-throated, and Lark Sparrows.

These species are declining primarily because of the decline of their preferred habitats. The intensification of agriculture as seen by the spread of row-crop monocultures and the loss of edge habitats in fields is a major cause of this decline. In the northeast, the reforestation of many farms has also resulted in loss of habitat for these species. Urban and suburban development in many areas has also decreased available habitat. Invasive species – weeds, fire ants, cats and rats and non-native birds – have also degraded these habitats.

The Northern Bobwhite is a good example of what is happening to this group of birds. Bobwhite populations have decreased by more than 80% over the last 40 years from more than 30 million birds to less than 6 million. Their range extends from Nebraska, Wisconsin, southern Ontario and Massachusetts south to Florida and southern Mexico. They have disappeared from parts of their northern range entirely and have decreased in abundance across the rest. The loss of suitable habitat is a major cause of this decline through the intensification of agriculture, the shift to more intensive pine-plantation forestry and industrial forestry and the continued urbanization of the east. On top of this loss, some invasive species such as fire ants are thought to decrease the quality of remaining habitats. Fire ants are known to attack nests and kill young birds, especially at hatching.

THE DECLINE OF COMMON WETLAND-DEPENDENT BIRDS

Several of the species on our list require healthy wetlands for their survival. These include Northern Pintail Duck, Greater Scaup Duck, Common Tern, American Bittern, and Little Blue Heron.

The continued loss and degradation of wetland habitats across the country and the changing pattern of freshwater use and flow are of concern for these species.

The Northern Pintail is a spectacular-looking duck that has decreased by more than 75% over the last 40 years. Populations have decreased to less than 4 million from about 16 million birds 40 years ago. This species breeds in wetlands across Alaska, Canada and the northern parts of the United States and winters in wetlands in the southern half and south through Mexico. A major nesting area is the prairie pothole region of north-central US. The intensification of agriculture causing both the loss of wetlands and the loss of grassland buffers around wetlands has negatively affected nesting populations. The loss of wetland habitat across the wintering range has decreased places for birds to successfully survive the winter.

The Greater Scaup is another duck that has decreased to only a quarter of its population present 40 years ago; now only about 500,000 individuals. This species breeds in tundra habitats across Canada and Alaska and winters in the Great Lakes and along both coasts of the US. During the

winter, nearly 80% of the Greater Scaup stage on the Great Lakes, then converge on the urbanized areas of the Atlantic Flyway in eastern US. These birds have faced both shrinking habitat and degraded habitat through increased pollution, development and invasive species such as zebra mussels. Global warming is affecting their tundra breeding habitat.

THE DECLINE OF COMMON FOREST BIRDS

A surprising number of declining common birds are from the boreal forests of Canada and Alaska: Evening Grosbeak, Boreal Chickadee, Common Tern, Common Redpoll, Pine Grosbeak, and White-winged Crossbill.

It is hard to pinpoint exactly what is affecting birds in this habitat. Several of these species are year-round residents of the boreal forests and occasionally show 'eruptions' south during the winter. The intensification of logging and mining across the forest is thought to be one serious threat. Global warming is affecting the pattern and intensity of wildland fires and increasing the intensity of insect outbreaks. Increased use of pesticides to control forest insect pests may also be affecting overall food supply for many of these species. It is important to note that this habitat is also critical for a number of Neotropical migrants that are showing dramatic declines.

The two continent-wide census techniques that we used for this analysis do not extend into the northern part of the boreal forest. It is possible that some of these species may be doing better than implied by our analyses because they are staying farther north than they had a few decades ago. More work to understand the dynamics of bird populations in the boreal forest is clearly warranted.

Two eastern species may have decreased in partial response to the changing land-use and forest management practices in the east. The Whip-poor-will requires open forests, and the Ruffed Grouse apparently prefers a mosaic of forest age classes for its life cycle. Much research still needs to be done to understand what is affecting these species. The abandonment of many farms in the east and northeast has resulted in the shift from open fields to forest over the last 40 years and those forests are gradually maturing now. In addition, the increases in human population across the east and the spread of houses into many rural areas have increased fragmentation of remaining forest patches. These changes have affected forestry practices and have affected the pattern of wildland fires.

MAJOR THREATS

The causes for the observed declines are many and the importance of each varies among species and across their range. We need to understand better the causes of declines for each species in order to develop effective management practices to help restore populations. The implementation of the endangered species act has shown that focused work on the causes of declines can counter those threats and help restore populations. We highlight some of the major threats to common birds here but do not try to develop a comprehensive list.

Global Warming

As you know, global warming represents a major threat to ecosystems and the species that depend upon them. Changes caused by this include shifting distribution of species, alteration in the annual cycle, increase frequency and intensity of wildland fires, changes in hydrologic cycles, and increase in some invasive exotics. We are especially concerned about birds that breed in open tundra habitats in Alaska and Canada. Greater Scaup Duck and Snow Bunting are the two common birds that made our declining list, but there are many rarer species in this habitat that are also at risk. Implementing policies to decrease the release of greenhouse gasses is critical but so is developing and implementing management plans that might help natural areas and species adapt to the changes that are occurring and will continue to occur. Developing and implementing adaptive management regimes is essential.

Urban-Suburbanization

Over the last forty years, there has been a steady expansion of urban and suburban development into rural areas. This expansion has contributed to the fragmentation of natural habitats, alteration in ecological process, and the increase in invasive exotic species in natural communities. This expansion is likely to continue into the foreseeable future and speaks to the needs to fund and expand the current protected area network including the National Wildlife Refuge System.

Intensification of Agriculture

Agriculture has become more intensive over the last few decades as farms have consolidated, fewer field borders were left, and more monocultures of grain crops were planted. This intensification has reduced the available habitat for many bird species on farms throughout the country. The current demand for food and for increased biofuels production is likely to increase this pressure going forward.

The recently passed Farm Bill did provide a significant increase in funding for the conservation title, however, Audubon believes that funding was not adequate for the programs that focus on providing bird and wildlife habitat. The programs most effective at providing bird and wildlife habitat include the Conservation Reserve Program (CRP), the Wetlands Reserve Program (WRP), the Wildlife Habitat Incentives Program (WHIP) and the Grasslands Reserve Program (GRP). These programs protect more than 30 million acres of bird and wildlife habitat, an area larger than the entire National Wildlife Refuge System in the lower 48 states.

The Farm Bill also allowed the governors of five western states to opt out of the sodsaver program, which leaves virgin prairie with no cropping history vulnerable to being lost. Given the threats to grasslands and the significant decline in grassland birds, Audubon believes it reflects the wrong priorities to leave some of America's most valuable remaining grasslands vulnerable.

Audubon also opposes any future efforts by the Department of Agriculture that may allow CRP contracts to be broken without penalties.

Wetland and Water Management

Maintenance and restoration of wetland habitat is critical for a number of bird species including many of these common birds. Freshwater wetlands in the US have decreased dramatically over the last 40 years and continue to be lost through urban, suburban, and agricultural expansion. The availability of water in many wetland and river systems is also shifting because of demand for fresh water and because global warming is affecting hydrologic cycles. Maintaining water supplies for many protected areas such as the National Wildlife Refuges and trying to manage annual hydrologic cycles will be critical to protecting and restoring bird populations dependent upon these wetlands.

Invasive Species

Invasive exotic species are a serious threat to ecosystems and have contributed to the decreased populations of many native species. These include both plants and animals. Invasive species are considered the second major cause of endangerment for species in the US after habitat loss and degradation. Many invasive species are well known including zebra mussels in the Great Lakes, fire ants in the southeast, and cheatgrass in the west. Implementing management practices that help control these exotics and protect native species will be extremely important to the long-term integrity of ecosystems and the protection of healthy populations of many species. Audubon commends the subcommittee for reporting favorably the Refuge Ecology Protection and Immediate Response Act (REPAIR Act) sponsored by Congressman Ron Kind, to address the threat of invasive species on our wildlife refuges, and for investigating the need for changes to the Lacey Act that would improve efforts to screen nonnative species and prevent them from being introduced to the ecosystems of the United States.

RECOMMENDATIONS

Reauthorize the Neotropical Migratory Bird Conservation Act

The Neotropical Migratory Bird Conservation Act (NMBCA) has done a great service for the conservation of neotropical migratory birds since it was enacted in 2000, distributing grants across more than 30 countries in South America, Central America, and the Caribbean for proactive, on-the-ground conservation projects benefiting migratory birds. The Act supports efforts to protect and manage bird populations and habitats, to increase research and monitoring, to improve law enforcement, and to promote community outreach and education programs. The program has been enormously successful, matching private funds to federal funds at a rate of nearly 5:1. For every \$1 invested, \$6 was spent on conservation, representing a tremendous leveraging of a modest federal investment. With recent changes made when the Act was last reauthorized in 2005; the funds are now available for conservation projects in the Canadian Boreal Forest, which hosts large numbers of breeding migratory birds including many of our declining common birds. Audubon strongly supports HR 5756, sponsored by Congressman Ron Kind, which would increase the funding authorized for these critical conservation projects from \$6.5 million to \$20 million by 2015.

Consider the Need for New Programs to Protect Common Birds and Their Habitat

Federal programs such as the Neotropical Migratory Bird Conservation Act, the North American Wetlands Conservation Act, and the State Wildlife Grants program play a critical role in protecting the remaining habitat needed for migratory birds to survive. However, we believe the Subcommittee should consider the need for additional programs that would target federal conservation efforts more directly to the needs of our common birds that are disappearing. Audubon recommends that the Committee request from the Government Accountability Office (GAO) a study of the distribution of funds from these three major conservation programs, the species and habitats that have benefited from these programs, and the extent to which this funding is benefiting America's declining bird populations. This information will be useful in assessing the need for legislation to establish new programs that direct funding to reversing the alarming decline in bird populations,

Encourage Management Changes to Help Birds Adapt to Climate Change

Climate change represents a major challenge for the conservation of birds and ecosystems. Recently, the US Climate Change Science program released their draft report *Preliminary review of adaptation options for climate-sensitive ecosystems and resources*. This report has some very good recommendations on how the Fish and Wildlife Service and the National Wildlife Refuge System should think about climate change and work to develop innovative programs to help ecosystems and species adapt. We recommend that you encourage the FWS to consider these recommendations and develop a plan to implement them.

A New Direction for the Wildlife Refuge System

The National Wildlife Refuge System is an important network of sites critical to the conservation of birds including many of the common birds in decline. Most of the refuges in the 48 contiguous states occur in low-elevation fertile soil areas. Many are relatively small, fragmented into multiple parcels and imbedded in a partially developed matrix. Consequently, species on these refuges face many of the major threats outlined above. The Refuge system, however, has an excellent reputation for implementing restoration plans for their lands and working collaboratively with surrounding land owners on management scenarios that might protect and enhance bird populations. The Refuge System is in need of a reinvigorated scientific effort and completion of a basic inventory of refuge resources, a new direction regarding strategic growth and protection of the ecosystems of the United States, and a new plan and resources to deal with the fundamental threat of climate change. We encourage the Subcommittee to continue its oversight of the National Wildlife Refuge System to ensure that this critical tool for conservation is used to its fullest extent to address the alarming decline of bird populations.

Madam Chairwoman and Members of the Subcommittee, this concludes my prepared statement. I would be happy to answer any questions you may have.