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Going, Going, Gone? An Assessment of the Global Decline in Bird Populations
Natural Resources Committee - Subcommittee on Fisheries, Wildlife, and Oceans

Chairwoman Bordallo, members of the Subcommittee, I want to start by thanking you on behalf of American Bird Conservancy for holding this very important hearing today to examine the decline of bird populations.

I am Vice President for International Programs at American Bird Conservancy (ABC), which is a national, not-for profit organization whose mission is to conserve native wild birds and their habitats throughout the Americas. ABC acts across the full spectrum of threats to birds to safeguard the rarest bird species, restore habitats, and reduce threats, while unifying and strengthening the bird conservation movement. By way of background, I have been active in bird research and conservation for over 25 years: I previously served as Executive Director of the Rocky Mountain Bird Observatory and as State Bird Conservation Coordinator for the Florida Fish and Wildlife Conservation Commission. I have also worked for Bird Studies Canada, The Nature Conservancy, PRBO Conservation Science, and the U.S. Fish and Wildlife Service. I received my Ph.D. in Biology after completing my dissertation research on the wintering ecology of Neotropical migrant and Cuban resident birds overwintering on Cayo Coco, Cuba.

I mention this because I have been a frontline witness, as both a researcher and an active bird conservationist, to the startling decline of some of the most familiar birds of traditional American landscapes. Sadly, over one-fourth of the bird species found in the U.S. have been listed by the U.S. Fish and Wildlife Service as "Birds of Conservation Concern". Since birds are sensitive indicators of how we are protecting our environment as a whole, this signals a crisis that Congress must act now to reverse.

In 2007, American Bird Conservancy and the National Audubon Society teamed up to produce a comprehensive analysis of population size and trends, distribution, and threats for 700 bird species in the U.S. The ABC-Audubon WatchList 2007 uses the latest available research from the bird conservation community along with the data from more than 100 years of Christmas Bird Counts and the 40 years of data from annual Breeding Bird Survey. The WatchList identified 178 species in the continental U.S. and 39 in Hawaii that are in immediate need of conservation due to declining or very low population numbers.

For example, the Red-headed Woodpecker, historically common, especially in open woodlands of the east, has dropped 65% over the past 40 years. The Wood Thrush has similarly lost over 50% of its population in just 40 years. Rusty Blackbirds have declined by a staggering 99%. On Hawaii, the Akikiki and Akekee have undergone severe population declines, leading ABC to petition for their listing under the Endangered Species Act. If listed, they would join 32 other Hawaiian bird species already protected.

Furthermore, a new American Bird Conservancy report, *Saving Migratory Birds for Future Generations: The Success of the Neotropical Migratory Bird Conservation Act*, details that of our 341 species that are neotropical migrants - meaning birds that breed in the United States and Canada and winter in Latin America and the Caribbean - 127 are in decline. 60 of those species, including 29 songbirds, are in severe decline having lost 45% or more of their population in the past 40 years. If

these trends continue, future generations of Americans may never be able to see a bright blue Cerulean Warbler, Bell's Vireo, or Black-chinned Sparrow.

This trend can be seen all throughout the country. Here in Washington, D.C., for example, an annual census of birds in Rock Creek Park that started in the 1940s found that the number of migratory songbirds breeding there has dropped by 70% over the past half-century. Three species of warbler (Black-and-white, Hooded, and Kentucky) no longer breed there at all.

The main reasons for these precipitous declines are well established. The first major source of bird mortality is due to habitat loss through conversion for human uses. Resource extraction and a growing human population have resulted in more development and land conversion for suburban sprawl, so there are simply fewer and fewer large blocks of unbroken habitat for our native birds.

The second major impact is from habitat degradation from ecologically unsustainable land uses - such as farming on land created by destroying forest or grasslands. Deforestation, especially in Latin America, is accelerating at an alarming rate, driven by the needs of the rapidly expanding human population, which tripled from 1950-2000. Estimates of the percentage of remaining forests that are lost each year in the Neotropics are between 1-2%.

To help mitigate the problems of habitat loss and degradation – both of which are rapidly increasing south of our border – ABC respectfully suggests that Congress act impact by improving the authorization level and appropriations for the Neotropical Migratory Bird Conservation Act. As the Subcommittee knows, the Neotropical Migratory Bird Conservation Act supports partnership programs in the United States, Canada, Latin America, and the Caribbean to conserve migratory birds, especially on their wintering grounds where birds of nearly 350 species, including some of the most endangered birds in North America, spend their winters. Projects include activities that benefit bird populations such as habitat restoration, research and monitoring, law enforcement, and outreach and education.

The ABC report, *Saving Migratory Birds for Future Generations: The Success of the Neotropical Migratory Bird Conservation Act*, found the grant program has a proven track record of reversing habitat loss and advancing conservation strategies for the broad range of Neotropical birds that populate America and the Western Hemisphere. The public-private partnerships along with the international collaboration they provide are proving themselves to be integral to preserving vulnerable bird populations. From 2002-2007, grant money has gone out to 44 U.S. states and 34 countries, funding 225 projects, impacting almost 3 million acres of critical bird habitat.

ABC strongly believes expanding this program is essential to achieving conservation goals critical to our environment and economy. Just as importantly, this federal program is a good value for taxpayers, historically leveraging over four dollars in partner contributions for every one that we spend. We note that Congressmen Kind and Gilchrest have bipartisan legislation, HR. 5756, that seeks to improve the authorization of this vital grant program, and we strongly encourage its immediate passage.

Food depletion is another source of mortality, especially for migrant birds using coasts and shorelines. For example, the *rufa* subspecies of the Red Knot, which is a small shorebird about the size of a robin, was once found in large flocks on the sandy beaches ringing Delaware Bay, but has seen its population plummet by 80-90% - from 100,000-150,000 birds in the 1980s to as few as 17,000 today. In fact, a recent status assessment from the U.S. Fish and Wildlife Service shows that numbers of the *rufa* Red knot continue to decline dramatically, and that the plunging numbers mean the knot could be extinct "within the next decade". The U.S. Fish and Wildlife Service report identifies the main threat to the Red Knot as, I quote, "the reduced availability of horseshoe crabs eggs in Delaware Bay arising from

elevated harvest of adult crabs for bait in the conch and eel fishing industries.” Overharvesting of horseshoe crabs is devastating shorebird populations as well as the medical profession’s renewable use of an extract from the horseshoe crab’s blue, copper-based blood to test the purity of medicines and to speed blood clotting, and to make absorbable sutures.

In order to allow shorebirds, such as the *rufa* Red Knot, to regain its population level, we suggest Congress must act to ensure they have the abundant food source they require. To that end, ABC asks the Subcommittee to hold a hearing specifically on the status of the Red Knot and the reasons why the U.S. Fish and Wildlife Service has not listed it under the Endangered Species Act, and to require the Atlantic States Marine Fisheries Commission to immediately impose a coast-wide moratorium on the commercial take of horseshoe crabs until the knot population level recovers.

Oceanic seabirds, which are often forgotten because they are rarely seen by most of us, are also in peril. Nineteen of the 22 species of albatross are threatened with extinction. Albatrosses live mostly in the open ocean, have wingspans of up to 12 feet, and can live more than 60 years. Like many large birds, they develop slowly; take a long time to reach sexual maturity, and most lay only one egg every other year. This means that losing even a small percentage of the adults can hurt the population.

ABC’s report: *Sudden Death on the High Seas*, found that the major source of mortality for seabirds such as albatrosses, comes from long-line fishing. As the baited hooks are being deployed behind commercial boats, these seabirds perceive an easy meal, and as they attempt to snatch the bait, they become hooked and dragged under water to their deaths. Great strides have been made in the United States, most recently under the newly reauthorized Magnuson-Stevens Act, to limit this seabird bycatch. U.S. fishermen comply with regulations, such as Magnuson, that are not required by most nations, and we owe it to them to try and level the playing field. Congress now has the opportunity to help our fishermen and further our commitment to international cooperation for the protection of seabirds by signing the Agreement on the Conservation of Albatrosses and Petrels (ACAP). ACAP is an agreement under the Bonn Convention that brings together fishing nations to protect albatrosses and petrels at scales relevant to these wide-ranging birds.

Another major source of bird mortality occurs as a direct result of human-generated hazards, such as from the effects of climate change; collisions with windows, communications towers, and wind energy turbines; and poisoning by pesticides.

Global warming threatens many bird species with extinction due to climatic changes and the loss of the habitats they depend on for survival. Like many plants and animals, birds’ life cycles and behavior are closely linked with the changing seasons. For neotropical migrant species, including many warblers, vireos, and other songbirds, changes in temperature, daylight periodicity and wind signal when they should begin their long flights southward in the fall and back again in the spring.

Studies in the United States and Europe have found that some songbirds are migrating earlier in spring, corresponding with warmer temperatures. A study of twenty species of migratory birds in North America shows that spring arrival dates were up to 21 days earlier in 1994 than in 1965, while just a few species were later. Many species, including the Tree Swallow, are now nesting up to nine days earlier than 30 years ago. In addition, studies indicate that the ranges of a number of bird species have been changing, consistent with the 20th Century trend of rising average temperatures.

Bird populations are also expected to shift poleward, or to higher elevations, to stay within their ideal temperature and habitats as the climate changes. At least seven North American warbler species (Prothonotary Warbler, Blue-winged Warbler, Golden-winged Warbler, Black-throated Gray Warbler,

Pine Warbler, Hooded Warbler, and Cape May Warbler) are documented to have shifted their range north in the past 24 years, by an average of more than 65 miles.

The number of birds killed by collisions with windows every year in the United States is estimated to be between 97.5 and 975 million birds, based on an estimate of 1-10 birds killed per building. Even the upper range of this estimate may be conservative.

Migratory birds are killed in both daytime and nighttime collisions with buildings. At night, migrants are disoriented and entrapped in light fields emanating from tall buildings and upward-shining lights. They are killed by collisions with each other or the structure, or collapse to the ground from exhaustion. During the day, many birds that survive night strikes along with other stopover migrants may be killed by reflective and transparent glass windows which they cannot perceive as barriers to be avoided.

Congress can help by highlighting this devastating environmental impact of buildings on birds by encouraging the research of bird-friendly glass until it becomes a commercially-viable product, and by including bird-safety as an integral part of the definition of “sustainable architecture” and “green buildings” in any formal recognition of green building certification systems such as the U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED) standards. This would result in changes to the design and operations of new and existing buildings that we know would substantially reduce collision mortality; and stimulate market-driven solutions for the development of new glass products that will save both energy and lives.

Similarly, the U.S. Fish and Wildlife Service estimates that between five and 50 million birds are killed in the U.S. each year after being attracted by the lights on communication towers and then colliding with the tower’s structure or guy wires during night migration. Most incidents happen in poor weather with low cloud during the spring or fall. There have been many reports of thousands of birds killed at single structures in single collision events. In Eau Claire, Wisconsin in 1963, more than 12,000 birds were collected at the base of a television tower from a single night strike; on a single night in 1972, kills of more than 1,000 birds were reported at television towers in Tennessee and Florida ; in 1998 10,000 Lapland Longspurs and several other species died in a one night multi-tower catastrophe in Western Kansas . In a report produced by American Bird Conservancy entitled: *Communications Towers: A Deadly Hazard to Birds*, we found 231 bird species are being affected, with Neotropical migrants making up a large proportion of all species killed. The solution to this problem may be as simple as changing a light bulb. Research has shown that migrants are attracted to steady burning lights at towers and that by switching to flashing lights that allow for a moment of darkness, migrants can escape unharmed. Unfortunately, the Federal Communications Commission has thus far failed to act and so millions of migratory birds will continue to die each year.

Pesticides cause significant bird mortality each year. According to the EPA, of the five billion pounds of pesticides that are applied worldwide each year, 20% is used in the United States. Many of these pesticides are dangerous to wildlife, even when used legally. One estimate suggested that more than 670 million birds are directly exposed to pesticides each year on U.S. farms alone, and 10%, or 67 million birds, die as a result. In an effort to document wildlife exposures, ABC maintains the Avian Incident Monitoring System (AIMS) database, developed as a cooperative program between American Bird Conservancy and the EPA. AIMS is a freely accessible web-based program that archives data on pesticide kills of wild birds, including data on numbers of birds, and chemical analysis results of detected pesticides. The AIMS database currently documents more than 2,500 poisoning cases and kills of more than 400,000 birds, which is a small fraction of the actual number of incidents that have occurred.

Last year, my colleague at ABC, Dr. Michael Fry presented testimony to the full Committee on the ongoing impact of commercial wind energy production. While the actual number of birds killed by wind turbines is unknown, estimates have been made in the range of 30,000 to 60,000 per year at the current level of wind development. However, the wind industry is prepared to increase the number of turbines 30 fold over the next 20 years in order to fulfill the President's request that renewable energy projects supply 20% of the nation's energy needs by 2030. At the current estimated mortality rate, the wind industry will be killing 900,000 to 1.8 million birds per year. While this number is a relatively small percentage of the total number of birds estimated to live in North America, many of the bird species being killed are already declining for other reasons, and losses of more than a million birds per year would exacerbate these declines.

ABC recommends that any renewal of the production tax credit by Congress include provisions that require minimizing bird and bat kills by wind projects, and require developers to follow standard Best Management Practices in avoiding and minimizing bird and wildlife impacts in order to qualify for the full, taxpayer-provided subsidy.

A fifth major threat to our native bird species comes from the decimation being caused by invasive species. Significant portions of land and water under federal jurisdiction, especially wildlife refuges, are thoroughly infested with harmful non-native species, which are subsequently able to spread unchecked to adjacent private, public lands and waters. Under current law, native fish and wildlife are not directly protected from harmful non-native species on federal or any other lands. A good example can be found at Midway, where invasive golden crown-beard is quickly choking the island and further contributing to the extirpation of the threatened Laysan Albatross by limiting reproductive success.

Conservation biologists generally recognize feral cats as another particularly harmful invasive species, responsible for documented extinctions of mammals, reptiles, and birds. There are more than 90 million pet cats in the U.S., the majority of which roam outside at least part of the time. In addition, many tens of millions more stray and feral cats roam our cities, suburbs, and rural areas. Scientists estimate that free-roaming cats kill hundreds of millions of birds, small mammals, reptiles, and amphibians each year. Cat predation is an added stress to wildlife populations already struggling to survive the other threats previously discussed in this testimony.

ABC recommends Congress carefully consider your bill, Madame Chair, HR 6311, which would prohibit the intentional introduction of any nonnative species until it has been scientifically evaluated for its potential harm to native wildlife. We also encourage the Senate to quickly pass Congressman Kind's bill, HR. 767, which would provide more federal resources toward fighting invasive species on our National Wildlife Refuge lands.

Lastly, we note the success of the Endangered Species Act. In 2006, ABC released a report on the current status and population trends of birds listed under the Endangered Species Act entitled: *American Birds - an Endangered Species Act Success Story*. The ABC report found that of the 43 bird species listed under the ESA that breed in the continental United States, 63% have increasing or stable populations, several of which have grown more than tenfold since being listed. The recovery of the Bald Eagle and Peregrine Falcon, and growing or stable populations of many other listed species such as the Whooping Crane are living examples of the Act's overall success. Unfortunately, for the birds in decline that we are considering today, most receive no federal attention or special protection. It is simply penny-wise-pound-foolish not to provide more resources through proven effective programs such as the Neotropical Migratory Bird Conservation Act, or the highly successful Joint Venture program, which comprises 18 regional partnerships that set priorities and leverage significant funding from private and

public sources to acquire and manage wildlife habitat in their geographic area. We support a doubling of Joint Venture operational funding, phased in over several years, to allow these broad partnerships to reach their full potential as positive forces for the conservation of birds throughout the country.

In closing, Madame Chair, as you and the other members of this Subcommittee well know, birds are not only beautiful and interesting creatures, eagerly welcomed by millions of Americans into their backyard every year, they are also an important natural resource shared among countries and their people.

What may not be well known is that birdwatching is also the fastest growing outdoor activity in America, with more than 30% of adults actively participating – far exceeding our designated national pastime, baseball. In addition, according to the U.S. Fish and Wildlife Service, birdwatching contributes nearly \$85 billion to our economy every year, or about 1% of GDP – including \$32 billion in retail sales, and \$13 billion in state and federal income taxes.

Having just celebrated Pollinator Week (June 22-28, 2008), it is worth recognizing that birds help our farmers by pollinating many plants and consuming billions of harmful insect pests from many important commercial food crop and forest species. Birds eat up to 98% of budworms and up to 40% of all non-outbreak insect species in eastern forests. These services have been valued at as much as \$5,000 per year per square mile of forest, potentially translating into literally billions of dollars in environmental services. Research in agricultural settings confirms what many farmers already know – birds help control agricultural pests. In orchards, birds seek out and destroy up to 98% of over-wintering codling moth larvae, a major pest of apples worldwide.

Birds are excellent proxies for how we are treating our environment, and right now, many species are declining. However, the explosive growth in the popularity of birds and bird-watching attests to a growing conservation constituency in all walks of American life. American Bird Conservancy believes that through the federal government's leadership in bird conservation, combined with the active help of its citizens, we can restore America's birds and the habitats on which they depend.