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National Audubon Society

Testimony

Before the Committee on Resources Subcommittee on Fisheries Conservation, Wildlife and Oceans

INVASIVE SPECIES: Comments on the Need for Control of Invasive Mute Swan Populations to Protect Native Migratory Birds

**Statement of Dave Pardoe
Member, Board of Directors**

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Mr. Chairman and Members of the Subcommittee:

My name is Dave Pardoe. I have been a member of National Audubon Society's Board of Directors for more than six years. Audubon's mission is to conserve and restore natural ecosystems, focusing on birds, other wildlife, and their habitats for the benefit of humanity and the earth's biological diversity. Our national network of community-based nature centers and chapters, scientific and educational programs, and advocacy on behalf of areas sustaining important bird populations, engage millions of people of all ages and backgrounds in positive conservation experiences.

On behalf of National Audubon Society's more than one million members and supporters, I am pleased to be here today to discuss the need for improved control of invasive Mute Swan populations in the Northeastern United States as well as other invasive non-native bird species that are causing harm to native migratory birds. I will provide testimony regarding our position on control of invasive bird species in the U.S. and how they should be managed, the obstacles standing in the way of appropriate management of these birds, and recommendations to address these obstacles.

Before I begin my testimony, I would like to thank the Chairman for his support on a wide range of conservation issues, including efforts to control invasive species, and support for protection of Blackwater National Wildlife Refuge and restoration of the Chesapeake Bay. I would also like to thank the Chairman and the Committee for the opportunity to testify today.

Invasive species are one of the key factors in the decline of many migratory bird species. Throughout the nation, many threatened bird species are imperiled by invasive species, and invasive species have been partly or wholly responsible for many bird extinctions since 1800. Thus, as part of the program to achieve its mission, Audubon has consistently supported efforts to eradicate invasive species for the benefit of native birds and wildlife.

Audubon has established a position in support of efforts by both state and national natural resource agencies to control invasive Mute Swans. Audubon filed comments on the U.S. Fish and Wildlife Service's (FWS) draft environmental assessment on the management of Mute Swans (*Cygnus olor*) in the Atlantic Flyway. Audubon supported the proposed action in the draft environmental assessment for Integrated Population Management of Mute Swans, including lethal methods to reduce the exploding Mute Swan population in the east by 67%. Audubon scientists support the culling of adult Mute Swans as a necessary measure to reduce or eradicate Mute Swan populations and thereby reduce the damage to the Chesapeake Bay ecosystem.

The Maryland Department of Natural Resources has exhaustively studied and documented the problem and published the Mute Swan Task Force Report on their web site. The public has had many opportunities to comment. The scientific and birding community supports mute swan removal.

In a recent case, we also urged the United States Court of Appeals to uphold the U.S. Fish and Wildlife Service permit because:

- a) Mute Swans displace and adversely affect native birds such as Tundra Swans, Least Terns, Black Skimmers, Common Terns, and Forster's Terns and may affect many species of waterfowl such as Black Ducks;
- b) Mute Swans consume large amounts of submerged aquatic vegetation;
- c) Mute Swans are non-native, invasive species that were introduced into Maryland in the 1960's; and
- d) Mute Swan populations will continue to expand unless adults are culled, and such expansion would result in even more damage to other species.

Bay grass recovery is important to water quality and Bay resources. Mute Swans consume large amounts of Bay grasses, perhaps as much as 12 million pounds a year. These grasses are the subject of intense recovery efforts under the Chesapeake Bay Agreement and the Bay Restoration Plan. Millions of dollars in public funds are devoted to their recovery. The grasses are essential to sustain the Bay's Blue Crab population (its most valuable seafood), for many other aquatic resources, for water quality and for native species of waterfowl.

As a responsible national conservation group dedicated to bird conservation, Audubon supports the FWS permit and the DNR removal efforts for Mute Swans. The Mute Swan is an introduced invasive species that threatens native birds and their habitat such as bay grasses. Addling and oiling eggs will not reduce populations and lethal removal is necessary to reduce or eradicate Mute Swan populations.

We have supported a nationwide Depredation Order for this exotic species with a goal of the elimination of wild Mute Swan populations. There is no biological basis for supporting continued populations of Mute Swans in the wild while there are sound ecological reasons to eliminate all wild populations. FWS should work to attain that goal in the long-term, and not support the maintenance of a wild population of an invasive species.

We believe such reductions/elimination are necessary because:

- 1) Next to habitat loss and alteration, invasive species have been identified as the greatest threat to birds in the U.S. Up to 46% of the plants and animals Federally listed as endangered species have been negatively impacted by invasive species. The Mute Swan is a large invasive species that has demonstrably negative impacts on other species, including native birds.
- 2) The large, aggressive Mute Swan has attacked and killed other birds and has extirpated breeding colonies of waterbirds. In Maryland, as noted in the Maryland Mute Swan Task Force Report, "One of the more serious conflicts between Mute Swans and native Maryland wildlife occurred in the early 1990's, when a molting flock of about 600 to 1,000 nonbreeding Mute Swans excluded Black Skimmers (*Rynchops niger*), a state threatened species; Least Terns (*Sterna antillarum*), classified as a species in need of conservation; and Common Terns (*Sterna hirundo*) from using the oyster shell bars and beaches in the Tar Bay area of Dorchester County for nesting sites." Tar Bay was the only remaining natural nesting site for Least Terns and Black Skimmers in the Chesapeake Bay.
- 3) Mute Swans impact other swans and waterfowl. According to the Maryland Task Force Report, "Mute Swans are believed to pose a significant threat to the well-being of the Chesapeake Bay tundra swan population (W.J.L. Sladen, Swan Research Program at Airlie, VA, pers. commun.)". In a Rhode Island study, one pair of Mute Swans vigorously defended a five acre pond, preventing use by other waterfowl (NY DEC 1993). In central New York, three pairs of captive Mute Swans killed at least 50 ducks and geese (mostly young birds) on a small zoo pond over a 20-month period (NY DEC 1993). Such behavior may be a factor in inhibiting the recovery of such native species as Black Ducks. In addition, Mute Swans consume SAV preferred by many native waterfowl species.
- 4) Mute Swans consume huge amounts of Submerged Aquatic Vegetation (SAV). George Fenwick's doctoral dissertation (1983) on Mute Swans in the Chesapeake Bay showed that the male Mute Swan consumed 34.6% of their body weight per day and females consumed 43.4%. Based on Dr. Fenwick's study, the Maryland Task Force Report notes that "Assuming that an adult/subadult mute swan consumes an

average of 3.789 kg wet weight of SAV per day (Willey and Halla 1972), a population of 4,000 swans has the potential to consume more than 12 million pounds of SAV annually (L. Hindman, MD DNR). Consumption of immature seeds, removal of biomass before plant maturation, and uprooting of whole plants may have a very negative effect on SAV with minimal consumption (M. Naylor, MD DNR, pers. commun).” Scientists at the Patuxent Wildlife Research Center have recently concluded that the introduced swan’s diet is composed nearly entirely of vegetation during all seasons of the year. Mute Swans relied heavily on SAV with Widgeon Grass (*Ruppia maritima*) constituting 56 % and Eel Grass (*Zostera marina*) 43 % of their food. See (Perry et al 2000). These scientists noted localized depletions (eat-outs) of SAV during the growing period. The FWS Draft EA notes that the current population of Chesapeake Bay Mute Swans consumes almost 10 percent of the total biomass of submerged aquatic vegetation in the Bay. These grasses are critical to many other avian species, to recovery of fisheries (Blue Crabs), and to the general water quality of the Bay and other water bodies.

To reduce or stabilize populations of Mute Swans, adults must be removed. Dr. Scott A. Petrie is Research Director of the Long Point Waterfowl and Wetlands Research Fund. He has authored a research paper on Mute Swans and he has published other work showing that Mute Swans have grown by 10% to 21% a year on the shores of Lake Erie and Lake Ontario, despite egg addling and oiling. In his paper published February 2002 in *Birding*, he finds that addling eggs does not work to reduce or stabilize populations of Mute Swans and that adults must be removed. Rhode Island began a control program of egg addling and pricking in 1979; despite the fact that 9,378 eggs have been destroyed in 1,629 nests over a period of 22 years, the population increased by over 500% (Allin, personal communication). Population models indicate that the most effective way to reduce population growth for a long-lived species such as the Mute Swan is to reduce adult survival rates (e.g., Schmutz et al. 1996) Schmutz, J.A., R.F. Rockwell, M.R. Peterson. 1997. Relative effects of survival and reproduction on the population dynamics of emperor geese. *J. Wildl. Manage.* 61(1):191-201.

Based on the best science obtainable, the take of adult Mute Swans is essential to prevent a substantial escalation in the Mute Swan population and the damage they cause to native avian species, SAV, and water quality. Without aggressive efforts to control and eliminate Mute Swans, the Mute Swan population will continue to rapidly increase. The Mute Swan population in the Chesapeake Bay has grown from 5 escaped birds in 1962 to about 4,500, including birds in Virginia and Maryland.

This problem is not just limited to Mute Swans nor limited to the state of Maryland or to the nation’s eastern coastline. For example, the European Starling has had widespread demonstrable negative impacts on native migratory birds. Although estimates vary, it is commonly believed that a total of about 100 individuals were released into Central Park in New York City in 1890 and 1891. The entire North American population, now numbering more than 200 million and distributed across the continent, is derived from these few birds. This is arguably the most successful avian introduction to this continent. Unfortunately, the European Starling offers intense competition for nesting cavities and has had a detrimental effect on many native cavity-nesting species.

A recent decision by the United States Court of Appeals for the District of Columbia Circuit in *Hill v. Norton* found that the strict language of the Migratory Bird Treaty Act cannot be read to exclude from protection by the Act the invasive Mute Swan. This decision limits the authority of the United States Fish and Wildlife Service to manage and control Mute Swans and other invasive bird populations for the benefit of native migratory birds. The decision is also inconsistent with a longstanding common interpretation of the law among professional biologists, environmental professionals, and agency officials in both the United States and in countries that are signatories the treaties underlying the MBTA that invasive, non-native birds are not meant to be protected by the Act, and instead they are a threat to the hundreds of other migratory bird species that are protected by the law.

National Audubon Society supports a small, rifle-shot change to the MBTA that would make clear that invasive birds are not protected by the MBTA and can be controlled by state and national wildlife agencies for the benefit of native birds and wildlife. In offering this support, however, I want to make clear two caveats that are very important to consider if a legislative proposal comes before this committee:

1. The term “invasive” should be carefully defined and limited to birds that are part of a human-introduced non-native population that actively causes ecological harm or outcompetes native migratory birds or other wildlife. National Audubon Society is concerned that a broader, more inclusive term, such as “non-native” would authorize lethal control of migratory bird species that naturally expand their range or naturally change their migratory routes in search of better habitat. For example, if climate change were to cause habitat

changes or modifications of other natural cues that lead birds to new areas or even to new countries, we believe these natural changes would not be an appropriate or sufficient rationale to justify elimination of protections under the MBTA. We also stress the need to focus on "human-introduced" species as this would be a clear indicator of unnatural invasion of a species. We also believe there must be a distinction made between those species that are causing no harm to native birds and wildlife and those that are. As noted by the National Invasive Species Council, only a small percentage of non-native species cause serious problems in their new environment and are collectively known as "invasive." The Council defines an "invasive species" as a species that is 1) non-native (or alien) to the ecosystem under consideration and 2) whose introduction causes or is likely to cause economic or environmental harm or harm to human health. The National Invasive Species Management Plan focuses on those non-native species that cause or may cause significant negative impacts and do not provide an equivalent benefit to society.

2. Any change to the MBTA should in no way diminish FWS authority, jurisdiction, or enforcement responsibilities with respect to indirect take of non-target migratory bird species that may be impacted by actions to control invasive birds. Although it may be necessary in some circumstances to use lethal control methods to manage populations of invasive species, some lethal control methods can have significant ancillary impacts on native migratory birds. For example, efforts to poison invasive European Starlings have had such negative impacts. Some poisons take days to take effect, leaving a risk that a predatory bird like a Sharp-shinned Hawk will eat the poisonous bird and become poisoned. Poison banquets left out on the ground for a target species can attract and kill a range of non-target migratory bird species. Just as the Fish and Wildlife Service exercised its authority to issue a permit under the MBTA on Anacapa Island in California to regulate the poisoning of invasive black rats that could impact non-target migratory bird species, the Fish and Wildlife Service should exercise its responsibilities under the MBTA to ensure efforts to control invasive species do not violate the terms and conditions of the Act and its judicial interpretations and implementing regulations. Therefore we strongly urge this Committee to ensure that any changes to the MBTA that may be considered to increase the authority of state and national resource agencies to control invasive bird species do not in any way abrogate Fish and Wildlife Service authority, jurisdiction, or enforcement responsibilities with respect to indirect take of non-target migratory bird species that may occur as a result of actions aimed at invasive species control.

In summary, Mr. Chairman, invasive bird species like the Mute Swan and the European Starling have had demonstrable negative impacts on native migratory birds throughout America. The recent court decision extending the protections of the Migratory Bird Treaty Act to invasive species that are harmful to a wide range of birds protected under the MBTA was inconsistent with longstanding common interpretations of the MBTA by resource professionals and limits the authority of natural resource agencies to implement proper and necessary control programs for the benefit of native birds and wildlife. National Audubon Society supports a small, rifle-shot change to the MBTA that would make clear that invasive birds are not protected by the MBTA and can be controlled by state and national wildlife agencies for the benefit of native birds and wildlife. In considering any legislative recommendations of this type, we urge the Committee to ensure that the definition of "invasive" bird species is limited to those that are introduced by human actions and cause significant environmental harm in a manner consistent with the definition used by the National Invasive Species Council, and we also strongly encourage the Committee to ensure that any such legislative changes do not abrogate Fish and Wildlife Service responsibilities to protect migratory birds that may be harmed by control actions aimed at invasive species.

Mr. Chairman, this concludes my prepared statement. I would be pleased to answer any questions that you or Members of the Subcommittee may have.