

Statement of the American Ornithologists' Union
Before the Committee on Resources, Subcommittee on Fisheries
Conservation, Wildlife and Oceans
In Opposition to
The American Aquaculture and Fishery Resources Protection Act
H.R. 3320
June 24, 2004 **Dr. J. Michael Reed** **Washington, D.C.**

My name is Dr. Michael Reed, an Associate Professor of Biology at Tufts University, and I am representing the American Ornithologists' Union (AOU), the leading scientific ornithological society in North America. The AOU is the oldest and largest organization in the New World devoted to the scientific study of birds, and has members from every state in the U.S. I have been a member of the Conservation Committee of the AOU since 1998, and in 2003 I chaired a 5-Ph.D. panel for the AOU that evaluated the Draft and Final U.S. Fish and Wildlife Service (USFWS) Environmental Impact Statement (EIS) for the double-crested cormorant Management Plan. We submitted a letter to the USFWS critiquing proposed management in the Draft EIS, and currently we are writing a follow up document evaluating the Final EIS.

The AOU appreciates the opportunity to submit this testimony to you today and to explain our strong opposition to H.R. 3320.

The American Ornithologists' Union strongly opposes H.R. 3320 for multiple reasons:

(1) The proposed bill has the potential to negatively affect the over 850 species of birds protected by the Migratory Bird Treaty Act (MBTA) (50 CFR 10.13). Although the title of the bill refers to "aquaculture" and "fishery resources", there is nothing in the language of the bill limiting it to aquaculture or fisheries settings.

Of the >850 bird species covered by the MBTA; of these, 300 species winter in Mexico, Central and South America, or the Caribbean, and most bird species found in the northern half of the continental U.S. are found in Canada. Of these species, 90 are federally listed as endangered or threatened, and another 131 species are listed by the USFWS as being Birds of Conservation Concern; that is, they are declining at such a rate and/or are subject to such threats, that without appropriate management, they could become candidates for listing under the ESA. These species might include reddish egret, white ibis, and common and least terns.

The U.S. government is charged by treaty and by law with protecting these bird species and is, in fact, making extensive efforts to conserve bird populations. The implementation of this proposed bill could: increase the number of listed species, undermine major bird management initiatives, and affect hunting, because some hunted species are fish-eaters (such as mergansers). All of these species are a publicly owned resource that live or migrate across international boundaries. In fact, until good data were available from aquaculture facilities on the number of hunted fish-eating birds being shot at the facilities, the USFWS might be forced to suspend hunting of these species in those states.

(2) The expertise for protecting bird species resides within the USFWS. No other federal agency has as its mandate the protection of bird species and none has the decades of experience in the intricacies of adaptive resource management for wildlife that is found in the U.S. Fish and Wildlife Service.

We believe that the Animal and Plant Health Inspection Service (APHIS) does not have sufficient information, research staff, or capacity to obtain and apply the needed information for species management in a timely fashion to appropriately manage fish-eating species, let alone all species protected by the MBTA. Nor does APHIS or USDA have a legal mandate to protect the bird species listed under the treaties. The authority to issue permits emanates from the MBTA, and unless APHIS also will be charged with implementing the MBTA and protecting the covered species, they should not be given the authority to issue permits to deviate from the law.

(3) The desire to allow APHIS control of migratory birds appears to be driven by the perception of a minority of the public that some bird species have a significant impact on fish populations, but this is rarely the case, especially with large water bodies and natural fish populations.

(4) Allowing APHIS management control of migratory birds would change wildlife regulation from an agency whose mandate is promoting wildlife conservation to an agency whose focus is reducing wildlife numbers. This is a clear conflict of interest, and given APHIS' mandates, migratory birds would suffer.

(5) In addition, since this would allow both USFWS and APHIS to regulate birds, there would be confusion, conflicts of interest, an unacceptable time lag in sharing information, inter-agency conflicts by managing personnel, and probably all manner of problems that arise when two powerful groups have a common responsibility but not common goals. This will occur no matter how diligently, on paper, coordination is developed. All bird species have the potential to suffer because of this bill, and some species inevitably will suffer.

(6) The most commonly suggested control measure for fish-eating birds, which plays a central role in the Final EIS of the double-crested cormorant Management Plan³³, is increased killing. However, this method has been shown widely to be ineffective or temporary.

(7) The potential consequences of increased killing on the persistence of targeted bird species have not been evaluated sufficiently, nor have the potential consequences to ecosystem or human health (because of the hundreds of thousands of pounds of dead birds expected to accumulate from shooting species like cormorants).

Do not let current abundance fool you into thinking a species is secure. The passenger pigeon was once one of the most common birds on earth – numbering in the billions – now it is extinct primarily because it was killed for being a crop pest.

We appreciate the important role the National Wildlife Research Center of APHIS is playing in developing non-lethal control methods and if anything, they should receive more funding to further these efforts so that if and when the USFWS determines, on the basis of scientific evidence, that management is warranted, we have a full range of tools available to manage birds while minimizing the impacts on bird populations. However, that does not mean that APHIS should have the authority to issue permits or be exempt from NEPA requirements.

We understand that for hatcheries and aquaculture facilities there is the potential for economic losses to fish-eating birds, and that these facilities can provide an inexpensive, important protein source, especially at a time when wild fish populations are declining so drastically because of overharvest. However, depredation (killing) options for double-crested cormorants are already available to these facilities, and owners can get individual permits for other species when warranted. These management options were carefully developed with public and professional input so as to respond to need, while avoiding excessive reduction of cormorant populations, and they involve mechanisms for close monitoring, data collection, and analysis to ensure that depredation is warranted and not excessive.

My comments will be on three topics:

- a) the lack of evidence of widespread negative effects of fish-eating birds on any fish stock,
- b) the lack of evidence that increased killing of fish-eating birds would resolve locally significant problems of fish loss where they are demonstrated to exist, and
- c) the reasons why allowing APHIS control of migratory birds, rather than maintaining exclusive control by the USFWS, will not work.

a) The lack of evidence of widespread negative effects of fish-eating birds on any fish stocks.

Of the bird species that commonly breed in the continental U.S., 73 species eat fish as their primary or entire diet, 19 eat fish as a secondary food source, and many others eat fish occasionally. Results of scientifically peer-reviewed studies show no significant impact by cormorant predation on desirable fish except at very small scales²⁹.

Since this proposed bill appears to arise from concerns about double-crested cormorants competing with humans for fish, I will start by discussing this species. What I present here on cormorants comes mostly from our AOU evaluations^{21,22} of the Draft and Final Environmental Impact Statements on double-crested cormorant Management^{32,33}.

Double-crested cormorant numbers declined significantly from the 1940s-1970s because of pesticides¹⁰. Since the early 1970s, numbers increased widely and it is likely that continental numbers have reached an all-time high; however, there have been declines since 1990 in West Coast- Alaska and Atlantic populations^{30,33}. In association with numerical increases cormorants have become increasingly involved in bird-human conflicts, principally revolving around perceived impacts on (a) commercial and (b) recreational fishing primarily in the northeastern U.S., (c) aquaculture in the southeastern U.S., and (d) to a lesser extent local impacts on vegetation and other bird species near cormorant colonies and roosts^{10,18,28}. Although it has not been evaluated to my knowledge, it is possible that some of the cormorant increase has been due to the increased amount of fish aquaculture.

In response to these heightened concerns, the USFWS issued a depredation order in 1998 to allow some shooting at some aquaculture facilities without federal permits. According to the USFWS, legal take (birds killed) under the depredation order and depredation permits from 1998-2001 was estimated at 46,664 birds per year³³. Much of this take is from Atlantic and Interior populations; Atlantic populations are showing recent population declines. In 2001, USFWS issued a second depredation order that allowed take at the roosts and the population reduction actions in the Northeast breeding range.

Perceptions and Potential Areas of Conflict. – It is clear that diverse members of the public are concerned about personal conflicts between the natural activities of double-crested cormorants and certain human values. It is important to evaluate these perceptions, evaluate the biological reality of the perceived conflicts, and if these perceptions are warranted, create a reasonable management plan to resolve the conflicts. The primary areas of potential conflict include commercial fishing, sport and recreational fishing, aquaculture, and wildlife impacts. Concerns include predation of desirable fish, public health and safety (by affecting water quality), interactions with other wildlife, and aesthetics. Of the potential conflicts between cormorant and human resource use, predation of desirable fish is the central concern.

Cormorants and Fisheries. Double-crested cormorants were reduced to very low levels in the 1940s-60s by pesticides and removal programs. When these constraints on population

growth were removed, populations had the potential to rebound. But for many people now active in aquaculture and fisheries, their perceptual “baseline” was set when double-crested cormorants were rare, so they might consider current abundance to be unnaturally large, when they might simply be a return to unsuppressed population levels. Humans also have altered the feeding opportunities for double-crested cormorants by building aquaculture facilities that house dense populations of fishes. Of course these facilities are attractive to efficient foragers such as double-crested cormorants, similar to deer attracted to cornfields or foxes to a henhouse. When humans choose to aggregate resources, we can expect wildlife to find those resources and to attempt to use them.

The EIS documents well a public perception by several sectors of decline in creel catch of large game fishes such as small-mouth bass and yellow perch. We agree with these findings insofar as they document a public perception and concern over a deteriorating situation in one type of public recreation and its attendant economics. We disagree completely, however, with the contention that cormorants are the cause of this problem, and that control by killing cormorants is the answer to this problem.

We fail to see the case for a major change in policy regarding public resources. We have no doubt some recreational fishers *perceive* declines in the quality of their fisheries, but only 3 states reported that double-crested cormorants predation *was perceived* to be of major importance to sport or commercial fisheries (Draft EIS³² section 4.2.2). Eight states reported a *perception* of moderate importance. Fisheries ecosystems are changing under a plethora of factors, only one of which is cormorant predation, and singling out cormorants is not justified.

The studies cited in the Final EIS that report negative or equivocal effects of cormorants on fisheries are not published in scientific journals and some are issued without clearly impartial external review (Table 1). Scientific publication is a particularly valuable filter of research because papers submitted for publication are scrutinized by uninvolved peers for their methods, analyses, and interpretations. Other papers have variable and often unclear oversight.

Table 1. Studies of potential effects of double-crested cormorant on commercial or sport fisheries cited in the cormorant EIS³², and whether it is published in a scientific journal.

Study	Location	Conclusion	Published?
VanDeValk et al. ³⁴	Oneida	Reduced walleye, perch	No
Lantry et al. ¹⁵	E. Ontario	Reduced smallmouth bass	No (NYDEC report)
Belyea et al. ³	L. Huron	Minimal impact on perch	Yes
Haws ¹¹	Lake/Woods	No impact on game fish	No
Glahn et al. ⁸	SE US	No significant impact	Yes
Campo et al. ⁶	Texas	No significant impact	Yes
Simmonds et al. ²⁴	Oklahoma	high densities could impact fish	Yes
Johnson et al. ¹⁴	Ontario	Estimate reduced consumption, but long term effects unknown	NO (NYDEC report)

Papers cited in Table 1, as well as more recent research⁷ suggest no significant effects on fish stocks unless double-crested cormorant numbers are extremely high – what constitutes “extreme” would probably change by situation, and would require demonstration of a significant impact. This does not imply that there are not localized conditions where double-crested cormorants are problematic. Most of these occurrences involve hatcheries fish and that there

are hatchery and release measures that would reduce impact such as alternating release sites, not feeding hatchery fish on the surface, etc. However, evidence suggesting change in the current management of cormorants appears to be driven by perception, not by scientific reality.

Many factors contribute to variation in recreational fisheries catches and the systems where *perceived* problems are the greatest are highly altered by overfishing, exotic species invasions, stocking of apex predators, and perhaps climatic variability. To single out cormorants as the cause of these *perceived* problems is not justified by science.

Cormorants and Aquaculture. – The local impacts of fish-eating birds at aquaculture ponds and hatcheries are well known and have been the subject of symposia here and in Europe. **We do not see that such localized problems require a change in federal management policy on a national scale.**

We believe the USFWS is the appropriate agency to continue managing migratory birds, and that APHIS should continue its supporting role in determining methods for protecting fish stocks. APHIS appears to be focusing mostly on deterrents and lethal measures, and we think they should expand their thinking to redesigning aquaculture facilities as well.

Other species. – To supplement the review of potential cormorant effects on fish stocks, I did a computerized literature search in BIOSIS Previews looking for negative impacts of any fish-eating bird species on any fish stocks, including aquaculture. BIOSIS Previews is the leading abstracter of scientific publications focusing on ecology and wildlife management, including fisheries. BIOSIS Previews searches the titles, abstracts, and key words of approximately 6,000 scientific journals, as well as some recent symposia and abstracts from some scientific meetings.

I searched on the following combinations of key words: (1) [(bird* or avian or piscivor* or cormorant*) and (fish*) and (impact* or effect* or depredation or conflict)], and (2) [(aquacultur* or hatcher*) and (piscivor* or cormorant or bird* or avian) and (impact* or effect)]. An * indicates searching all words that start with the letters to the left of the *; so fish* searches fish, fishing, fisheries, etc.

From this search I went through the most recent 500 titles and discarded references with no abstracts. From abstracts remaining,

- 3 suggested that local depletions of fish could be significant although it was not evaluated^{16,25,36},
- 2 provided data demonstrating a lack of biologically significant impact on natural fish populations^{20,26},
- 0 provided data demonstrating a biologically significant impact on natural fish populations, and
- 1 provided data demonstrating a significant impact of fish-eating birds at an aquaculture facility³⁸.

From this literature search I found greater concern expressed about the reverse problem – 22 abstracts demonstrated, or expressing concern over potential, negative effects of fisheries on fish-eating birds (mostly through bycatch).

Population-based management of birds

Even if the change in regulation proposed by this bill were justified, and if APHIS were given the mandate to regulate APHIS does not have expertise, budget, or personnel to suitably

manage fish-eating birds, let alone all species covered under the MBTA. Wildlife management is a complex problem requiring extensive survey and monitoring data, the infrastructure to monitor populations, and full time statisticians and experts in population biology to design valid monitoring plans and appropriately analyze and interpret the data. For example, to set hunting regulations, the USFWS conducts 55 different surveys every year and it takes a battery of biostatisticians and population biology experts to analyze the data so that next year's limits can be set.

In order to successfully manage bird populations, particularly for species where some killing is allowed, an agency must obtain accurate data on population sizes and distributions, the life-stage that limits a population (is it the number of eggs laid, juvenile survival, etc.?), the natural and human caused sources of mortality, how populations are connected, and recent population trends. One also needs (1) the capacity to detect population declines, which requires effective monitoring, (2) expertise population biology and possibly in experimental design to determine the cause of the decline, and (3) the capacity to alter current management in a timely fashion to decrease the declines if they are determined on a scientific basis to be significant. These are central to adaptive wildlife management.

b) The lack of evidence that increased killing of fish-eating birds would resolve locally significant problems of fish loss where they are demonstrated to exist.

Even if it is concluded that cormorants, or some other fish-eating bird species is causing a local problem, there is no compelling argument for taking responsibility for managing these species out of the hands of the USFWS and turning it over to APHIS.

For this to be a reasonable course of action, it should be shown that the USFWS is doing a negligent job and that APHIS would do a more effective job – neither can be demonstrated. In fact, the agencies are working together, each in their specialized areas, to solve wildlife problems where they exist. There is reason to suspect that turning control over from USFWS to APHIS could, in fact, reduce the effectiveness of controlling demonstrated problems, and would be disastrous for the other bird species protected by the Migratory Bird Treaty Act (see below).

A variety of tools are currently available for controlling fish-eating bird species, particularly cormorants, at sites where problems can be demonstrated to occur. In concert, they are probably effective, both biologically and economically, except in a setting of extremely large aquaculture facilities. In this situation, however, there is (1) no demonstrated effective solution, (2) good evidence that increased killing will not be effective, and (3) no clear argument that the burden of protecting this resource should be on the USFWS and APHIS, rather than on the aquaculture industry to make facilities that better protect their resources.

A variety of tools are currently available for controlling cormorants:

Non-lethal Management: This includes visual and sound deterrents, harassment (such as non-lethal shooting), and netting over aquaculture facilities and hatcheries (reviewed in 33). Controlling cormorants by non-lethal means is effective, but every study to date shows that constant effort must be taken to keep birds off aquaculture ponds. Because cormorants habituate quickly, harassment or passive deterrents (flashing lights or decoys) lose effectiveness. Exclusion devices are effective, but current applications are expensive and might not be economically impractical at large scales. For smaller facilities, netting over the pond appears to be effective^{4,17}.

Aquaculture Depredation Order: Double-crested cormorants can be killed at commercial freshwater aquaculture facilities and state fish hatcheries in 13 states without permits or regulation. In other states and localities take is done under authority of a Depredation Permit administered by the USFWS regional offices. The take (killing) is required to be monitored, and breeding populations surveyed at 10-year intervals. There is no indication that the ADO is effective. As adjudged by the participants in the ADO, the results have not been satisfactory and the negative perception of cormorant predation is unchanged. Furthermore, we are not convinced that the current monitoring system returns accurate data in a timely fashion.

Public Resource Depredation Order. Double-crested cormorants can be killed by APHIS at roost sites in the 12 southern aquaculture states without permits under the new PRDO issued by the USFWS in October 2004. In addition, APHIS can kill unlimited numbers of Double-crested cormorants under the PRDO wherever they are found to be injurious to a public resource.

Depredation Permits: These are issued by USFWS for take of cormorants in states other than the 13 mentioned above. As these are issued on a case-by-case basis, Depredation Permits are likely to be responsive to local conditions.

Is lethal control effective?

All evidence indicates that killing cormorants, or other fish-eating species, at hatcheries and aquaculture facilities is not an effective measure^{1,12,19}.

Lethal shooting will not work well for several reasons, based on the evidence from numerous scientific studies. (1) Controlling cormorants by lethal or non-lethal means is a very local approach, and every study to date shows that constant and continuing effort must be taken to keep birds off ponds^{2,9,27}. (2) Eliminating birds near aquaculture sites appears to provide only temporary respite, and can push birds into other areas where they might become a problem. Local reductions on the non-breeding grounds would have a trivial impact on a continental scale, and thus the same problem will be revisited in the next season when new wintering birds appear. (3) Cormorants are not the only fish predator on aquaculture ponds; herons and pelicans have similar behaviors but not the numbers at present. Selectively culling the most numerous species of fish predator, double-crested cormorants, from aquaculture ponds could shift the problem to the other species.

In addition, Parrott et al.¹⁹ found that lethal shooting was no more effective at controlling fish-eating birds than was harassment from non-lethal shooting.

Another issue I have not seen addressed is the potential health issue associated with cormorant carcasses. The Final EIS for double-crested cormorant management suggests that 160,000 birds per year would need to be killed to resolve cormorant conflicts³³ (USFWS 2003). This number, however, is self-admittedly a guess, and the Draft EIS determined 250,000 birds per year would need to be killed³². At 4 pounds per bird, what is the plan for safe disposal of up to 1 million pounds of bird carcasses each year? Carcass disposal has the potential of being a significant human health problem.

Aquaculture facilities and hatcheries are the last places cormorants will leave.

If the primary means of controlling cormorants is by killing them, aquaculture facilities and hatcheries should be the last places cormorants will leave. Double-crested cormorants are opportunistic feeders, and they are able to range over great distances in search of food,

particularly during the non-breeding season, preferentially aggregating at rich food sources¹⁰. As a consequence of localized culling, fish aquaculture and hatchery sites could become large population sinks, where killed birds are replaced by others seeking a rich food source. **The continuing influx of new birds means that aquaculture sites would become the last places for cormorant numbers to decline even if continental numbers declined substantially^{5,35}.**

The Draft EIS³² acknowledged that prime foraging areas might be the last to be abandoned (p. 81), although this acknowledgement was absent from the Final EIS. Consequently, we anticipate that shooting cormorants at aquaculture facilities would result in massive kills of double-crested cormorants before any compensating effect is seen, and that the efforts in wintering areas would have to continue indefinitely.

Other unanswered questions

There are a number of other important questions that have not been answered with regards to lethal control of cormorants, or any other fish-eating bird species.

- (a) How will killing be accurately monitored? There must be mandatory reporting of legal take, and some estimate of illegal take.
- (b) How will local and regional populations be monitored? If one is going to kill individuals, it is incumbent on the USFWS to ensure that populations do not decline significantly. The Final Cormorant EIS does not have an adequate plan.
- (c) How much killing can be tolerated before populations crash? Unknown.

For many species the decline in numbers can non-linear – that is, at some population sizes a small reduction in numbers can lead subsequently to a sudden decline in population size.

In addition, high numbers is not a guaranteed buffer to depredation. Remember the passenger pigeon. This species was once so abundant that there are credible reports of flocks darkening the sky, blocking out the sun, for days on end. A species that was once so common it generally was thought that no amount of killing it could result in its demise. This species was considered a crop pest and was shot for food, resulting in its extinction.

- (d) How are populations connected at local and regional spatial scales? Unknown.

That is, it is not known to what degree killing in one region will affect populations elsewhere, or to what degree local killing will result in subsequent influx of birds from other sites.

- (e) What are the potential impacts on ecosystems if cormorants significantly decline?

Cormorants are common species in some ecosystems. It is difficult to determine what their removal (or significant decline) would do to fish communities or other species in the ecosystem. In addition, cormorants play a role in nutrient cycling, and some species might depend on the availability of dead birds in areas where they normally die. One thing at least some people have learned over decades of errors is that we cannot remove or add a common species from an ecosystem and accurately predict the effect on an ecosystem. In many systems, heavy fishing pressure has reduced abundances of large predatory fishes, enhancing populations of smaller forage fishes. The other large impact is the establishment of non-native fishes, and the negative impacts of exotic species introductions are well established, being the second greatest threat to species persistence³⁷.

Some suggestions

(1) Public perceptions and public attitudes related to the natural history of cormorants need to be addressed. It would be a grave mistake in our opinion to proceed with a biological approach to a problem that often is one of sociology and economics. We suggest that an aggressive, pro-active program of research, public education, and outreach be undertaken on a regional and national scale. Scientific research on the environmental sociology of cormorant-human interactions needs to be done, and it will be critical that experts in sociological research conduct these studies.

(2) Serious attention must be given to finding innovative and economically appropriate methods for exclusion of all piscivorous birds at fixed site facilities, such as aquaculture ponds and hatcheries. Retrofitting existing solutions has not proved to be as successful as needed, and where aquaculture ponds are extensive and large, as in the delta region of the southeastern U.S. are clearly impractical. New solutions are needed.

(3) Further study is needed to understand better the causes and possible mitigation of declining yields in sport-fishery. Single-factor explanations for complex phenomena are unlikely to be helpful in finding solutions to problems that affect people's recreation or livelihoods. We believe that regional consortia of fisheries scientists, ornithologists, hydrologists, and those in allied fields working together are the best solution to gathering relevant scientific information.

(4) We believe that there are management options that are available and can be undertaken immediately that can serve as an effective first step for management of human-cormorant conflict. Specifically, that the federal government should continue Non-Lethal Management and Depredation Permits as administered prior to 2003. Scientific evidence does not support control at winter roosts as being effective or having the desired consequences, and we believe that it should not be allowed.

(5) APHIS should expand development of non-lethal management methods, including working with the aquaculture industry to determine if there are facility designs that could offer fish protection from fish-eating birds.

c) **Reasons why allowing APHIS control of migratory birds, rather than maintaining exclusive control by the USFWS, will not work.**

The USFWS has been managing migratory birds for decades, and their first goal in their Mission Statement is to sustain fish and wildlife populations. Within that Mission Goal, their first goal is to conserve migratory bird species [<http://planning.fws.gov/>]. The USFWS' state Mission is "...to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people." (p. 80). **Removing management of migratory birds from the USFWS would gut a central mandate of the USFWS**, and would interfere with their management of our National Wildlife Refuges (which celebrated their centennial last year) and with endangered species conservation.

It also would interfere with the major efforts currently in place to manage North American birds. The USFWS is central to the North American Bird Conservation Initiative, including their role in the North American Waterfowl Management Plan, Partners-in-Flight, the U.S. Shorebird Plan, and Waterbird Conservation for the Americas. The proposed transfer from the USFWS to APHIS of management of migratory birds could endanger management plans that have been decades in development.

According to APHIS' web site, their agency "is responsible for protecting and promoting U.S. agricultural health, administering the Animal Welfare Act, and carrying out wildlife damage management activities." The motivation is to help the USDA "provide the Nation with safe and affordable food." [<http://www.aphis.usda.gov/>]. Although a figure in their Strategic Plan includes protecting "ecosystems & natural resources", according to the text this is only within the context of protecting resources for human use – "...protection for the critical animal and plant health infrastructure that supports American agriculture and our food supply." (p. 8). Their primary concern for wildlife issues is to control wildlife disease that affects domestic animals, the public, and to the aviation industry, and to control invasive species that affect agricultural production (p. 10). **There is no mandate for APHIS to protect wildlife, or to promote the protection of wild species, for their own sake.**

While we recognize that these are critical issues to the U.S., and that APHIS is playing an important supporting role to the USFWS, **there would be a clear conflict between APHIS' Mission and a central goal of protection of birds for non-exploitative purposes.**

Even if sufficient funds and personnel were made available to APHIS for this new responsibility, it would take years of training and work to bring the agency up to speed for the job, and managing migratory birds for their own protection would require a fundamental change in APHIS' mandate – this does not appear to be forthcoming. **In the short- and long-term migratory bird species would suffer from this transfer of responsibility.**

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