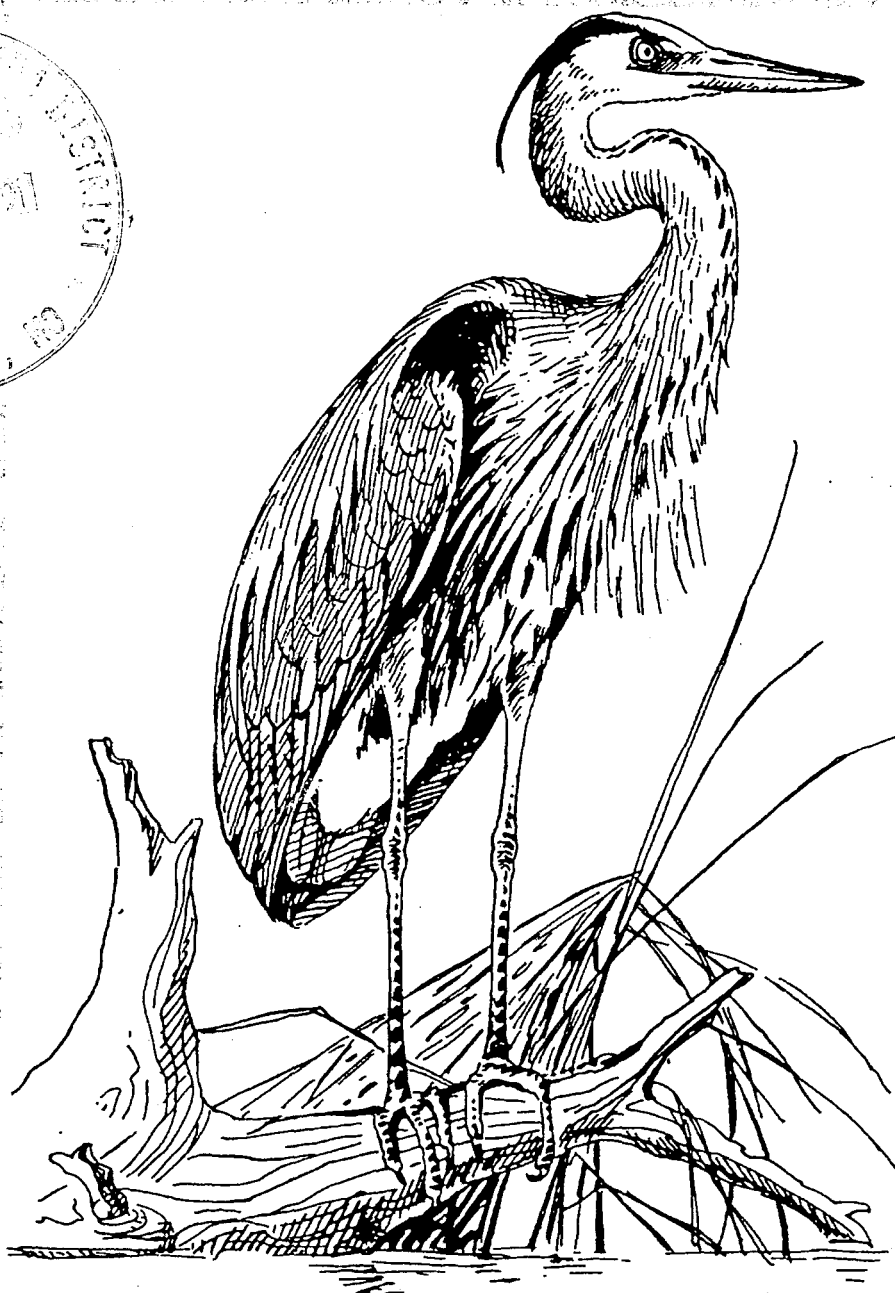


U.S. Fish & Wildlife Service
Plan for Conservation of Nongame Birds
in the Northcentral United States



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INTRODUCTION

Purpose of Document

This document outlines a plan of action for nongame bird conservation in the Northcentral United States, including the States of Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin. This area corresponds to Region 3 of the U. S. Fish and Wildlife Service (Service). (Hereafter, unless otherwise noted, the term Region will refer to the geographic area encompassed by Region 3 and activities and programs administered by the Service's Regional Office, whereas the term Service will denote programs and activities that the agency undertakes nationwide.) The plan addresses actions that are needed to maintain and enhance nongame bird populations and habitats in the Upper Midwest, both on and off Service lands. While the tasks set forth in this document primarily focus on efforts that the Region will undertake or coordinate, cooperative ventures with other agencies and organizations will be necessary to fully achieve the plan's objectives. This plan is intended to be a dynamic document that will be revised as necessary to reflect changing priorities and to address new issues.

Scope

This plan deals with the needs of nongame birds, which are defined here as migratory bird species protected under the Migratory Bird Treaty Act that are not hunted and not Federally-listed as Threatened or Endangered. A total of 1,043 migratory bird species occur naturally in the United States. Of these, 868 species (83%) are protected by Federal regulations, including 836 (96%) by the Migratory Bird Treaty Act, 75 (9%) by the Endangered Species Act, and 43 (5%) by both. (Most of the 175 bird species not protected by these Acts are not part of the normal avifauna of the U. S.) Nationwide, there are 740 species of nongame birds (vs. 53 species of game birds) protected exclusively by the Migratory Bird Treaty Act (see Code of Federal Regulations, Title 50, Section 10.13 for a listing of species).

Appendix A contains a preliminary list of bird species occurring in the Northcentral U. S. Of the 466 bird species listed, 446 (96%) are protected by the Migratory Bird Treaty Act. Of these species, 48 (11%) are game and 5 (1%) are Federally-listed as Threatened or Endangered, leaving 393 (88%) nongame species. About 130 (28%) of the 466 bird species in the Region are vagrants, accidentals, extirpated, or extinct, and 336 (72%) are regularly-occurring species. The list in Appendix A will be refined following consultation with State natural resource agencies and others having information on the distribution and status of birds in Region 3.

Federally-listed Threatened and Endangered species are not dealt with in this plan because their needs are already being addressed by existing programs, funding, and recovery plans. However, survey, management, research, and information and education efforts directed at nongame birds will certainly benefit many Threatened/Endangered (and game) species, and vice versa.

Background and Justification

The Fish and Wildlife Service is the lead Federal agency responsible for implementing and coordinating migratory bird conservation and management in the U. S. Migratory birds have been an important part of the mission and activities of the Service and its predecessors, the Division of Economic Ornithology (1886-1896) and the Bureau of Biological Survey (1896-1940). Currently, migratory bird management activities within the Service are guided primarily by the Office of Migratory Bird Management (MBMO) and 7 Regional Migratory Bird Coordinators. In addition, the Service's various Research and Development offices, laboratories, and field stations conduct a wide range of research on migratory birds. Other Service programs and activities, particularly Refuges and Wildlife, Fish and Wildlife Enhancement, Endangered Species, and Federal Aid, conduct activities that provide important benefits to migratory birds, including nongame species. There are a number of reasons why the Service has given priority consideration to nongame birds in the past and why it is expanding its efforts in this area.

First, the Service has legal responsibilities under various Federal laws to conserve all migratory birds. A brief review of these legal authorities is presented in Appendix B (see also Chandler 1985). These laws presently are benefiting nongame birds and they provide many opportunities for addressing the needs of these species further. In particular, the Migratory Bird Treaty Act and the Fish and Wildlife Conservation Act give the Service far-reaching authority to conserve nongame birds. The latter Act was amended in 1988 to give the Service additional responsibilities for monitoring and managing nongame birds and their habitats.

Second, there is increasing evidence that many nongame bird species are experiencing serious population declines (Terborgh 1989, Askins et al. 1990). These declines contribute to the loss of biodiversity. In 1987, MBMO identified 30 species nationwide that have unstable and/or declining populations; 14 of those species occur in Region 3 (U. S. Fish and Wildlife Service 1987). (More recently, MBMO expanded the national list to include nearly 120 species and subspecies (U. S. Fish and Wildlife Service 1990a).) Habitat degradation is generally recognized as the greatest threat facing nongame birds. Habitat loss or modification resulting from wetland drainage, shoreline development, agricultural intensification, logging, fire suppression, urbanization, and other

factors have adversely affected many nongame bird species. Fragmentation of habitat is an especially significant problem for area-sensitive species (Terborgh 1989). Other limiting factors for nongame birds include contaminants, human disturbance, predation, cowbird parasitism, and problems on wintering grounds (see Gradwohl and Greenberg 1989, Terborgh 1989). For many species, the causes for decline are unclear.

Third, the public is very interested in nongame birds. According to the 1985 National Survey of Fishing, Hunting, and Wildlife-associated Recreation (U. S. Fish and Wildlife Service 1988), 96% of the 167 million Americans 6 years old or older that used wildlife resources recreationally were involved in nonconsumptive activities, including wildlife observation, photography, and feeding. This compares to 32% involved in fishing and 11% in hunting. (About 90% of all anglers and hunters also conducted nonconsumptive activities.) For 127 million participants, nonconsumptive endeavors were the primary purposes of their activities. Birds were the taxa most frequently sought by participants travelling primarily to observe, photograph, and feed wildlife; 85% of the participants sought birds, with waterbirds and raptors being the most popular groups.

Expenditures by nonconsumptive participants 16 years old and older totaled \$14.3 billion. About two-thirds of this total was spent on equipment and one-third on food, lodging, and transportation. While expenditures on nongame birds per se are unknown, they are probably considerable. Items purchased primarily for attracting and observing birds include bird seed; bird feeders, baths, and houses; binoculars and spotting scopes; field guides and other books; magazines and journals; and recordings. Additionally, expenditures on photographic and camping equipment, travel, and lodging associated with bird watching are substantial.

Fourth, the popularity of nongame birds makes them a useful tool in environmental education and public use programs. Birds can be used to illustrate larger environmental problems, such as habitat loss and pollution, to the public. If educational programs are successful, attitudes change, and this translates into political support for natural resource programs. Nongame birds can be used to "sell" other programs, such as the North American Waterfowl Management Plan, to a larger audience.

A final reason for the Service to increase its involvement with nongame birds is that it will enhance ongoing activities of other agencies and organizations. In the absence of a specific, large-scale program for nongame wildlife management at the Federal level, the States and several private organizations have instituted effective and diverse programs to address the needs of these species. Presently, however, efforts by these entities are sometimes fragmented or

lacking in direction (Gradwohl and Greenberg 1989). State programs, for instance, are duplicative of one another in some areas, particularly research. The Service could, by acting as a central clearinghouse, transfer information among agencies and organizations. This would lead to better coordination of activities and more efficient use of funds and personnel. As Myers (1989) recently noted, "... the Service must recast its role to become a catalyst, facilitator, and leader, not the doer. It should use its spare resources to lever action ... It should enlist -- through inspiration, cajoling, bribery, seduction, and outright payment for services -- those organizations capable of further leveraging the investments through their memberships and volunteer activists." Because of the large number of species involved and their wide-spread distribution, partnerships between the Service and other entities are essential if the needs of nongame birds are to be addressed adequately.

The 1985 National Survey of Fishing, Hunting, and Wildlife-associated Recreation indicated that, through expenditures on licenses, stamps, tags, and permits, anglers and hunters contributed about \$800 million of direct funding to natural resource agencies, while nonconsumptive users contributed no direct funding. Most funding for nongame management is through State income tax checkoffs, surcharges, and license plate registration fees. Until recently, there was little direct Federal involvement in nongame species management other than that incidental to other management priorities. Since 1988, however, Congress has added funds to the Service's budget that have been specifically designated for use on nongame birds; the amounts earmarked for management and research, respectively, were \$500,000 and \$500,000 in 1988; \$250,000 and \$500,000 in 1989; \$400,000 and \$650,000 in 1990; and \$750,000 and \$750,000 in 1991.

The Office of Migratory Bird Management has prepared several documents in recent years that summarize at a national level the Service's past and present activities with respect to nongame birds (U. S. Fish and Wildlife Service 1987, 1990a, 1990b; see also Lewis and Seitz 1988, Wells 1989, Hunter 1990, and Office of Information Transfer 1990). These documents also propose future directions for nongame bird survey, management, and research activities (see also Gradwohl and Greenberg 1989). In the document, "Strategies for Conservation of Avian Diversity in North America" (U. S. Fish and Wildlife Service 1990b), MBMO presents a comprehensive approach to the conservation of nongame birds. The strategies outlined in that document will guide the Service as well as provide direction for other agencies and organizations.

This Regional plan steps down MBMO's document and proposes a nongame bird conservation strategy for the Northcentral U. S. It is logical, efficient, and cost-effective to address the needs of nongame birds before they reach Threatened and/or Endangered status since the resources needed to address their problems.

at that point are significant. A proactive approach is essential. Region 3 has had a nongame bird management program since 1988, when Congressional add-on funds first became available for this purpose. Since then, approximately \$300,000 has been used to support nongame bird projects in Region 3. A list of these projects appears in Appendix C. An overview of nongame bird management efforts by the Service and States in Region 3 is presented in Lewis and Seitz (1988).

Relationship to Other Service Programs and Initiatives

Many of the activities presently undertaken by the Refuges and Wildlife, Endangered Species, Ecological Services, and Federal Aid programs of the Fish and Wildlife Service are providing substantial benefits to nongame birds in Region 3. With additional funds, personnel, and technical information, the positive impacts of these programs can be enhanced. Several new Regional and national Service programs and initiatives offer the potential to provide additional benefits to nongame birds and will mesh well with the activities outlined in this plan. These include:

- 1) Partners in Flight (neotropical migrant bird conservation program).
- 2) Biodiversity initiative.
- 3) Watchable Wildlife program.
- 4) North American Waterfowl Management Plan Joint Ventures.
- 5) Stewardship 2000 (private lands initiative and Farm Bill activities).
- 6) Regional wetlands concept plan.
- 7) Recovery 2000 (endangered species initiative).
- 8) Great Lakes initiative.
- 9) Challenge Grant program.
- 10) Take Pride in America program.
- 11) Common Sense Management System.

PROGRAM GOALS

The goals of the Fish and Wildlife Service's nongame bird program are to: maintain populations of all native nongame bird species and their essential habitats at reasonable levels; prevent any species from becoming Federally-listed as Threatened or Endangered; and ensure continued opportunities for people to enjoy these species. To contribute toward the accomplishment of these Servicewide goals, Region 3's nongame bird conservation program will:

- 1) Determine the population status and trends of nongame bird species of concern.
- 2) Identify factors that limit nongame birds, particularly species of concern.
- 3) Implement management actions that enhance populations of nongame birds, particularly species of concern.
- 4) Enhance the public's knowledge and appreciation of nongame birds.
- 5) Enhance communication and cooperation within and outside of the Service on nongame bird issues.

TASKS

To accomplish the above goals, the Region will undertake and/or coordinate a number of activities. Many of these are ongoing and will be maintained at current levels or increased, as necessary. Others will be new efforts. Implementation of new or expanded activities will occur as funding and personnel become available.

1) DETERMINE THE POPULATION STATUS AND TRENDS OF NONGAME BIRD SPECIES OF CONCERN

- a) Monitor nongame bird populations and assess status and trends.
Population monitoring is fundamental to sound wildlife management. Setting management priorities requires the capability for early and accurate detection of population declines or instabilities outside the range of natural fluctuations. Population assessments are also necessary to evaluate the impacts of management and other activities on nongame birds. A number of techniques (reviewed in Appendix D), ranging from multiple-species surveys to more specialized censuses of individual species, are currently available for monitoring populations of nongame birds. Where appropriate, these techniques and others will be used to

determine the population status and trends of nongame birds throughout the Region. Some of these methods provide detailed information at the local level, whereas others are more broad-based and suitable for detecting large-scale population changes. The voluntary efforts of knowledgeable amateur ornithologists should be enlisted whenever possible to assist agency biologists with population monitoring efforts.

Population monitoring on National Wildlife Refuges and other public lands is especially important since these areas are less susceptible to degradation and will thus provide more appropriate sites for long-term monitoring. The Service will strive to increase the number of Breeding Bird Survey routes, Breeding Bird Censuses, Christmas Bird Counts, colonial waterbird and shorebird surveys, and other standardized monitoring techniques on National Wildlife Refuge System lands in the Region. These methods are preferable because they provide data useful in determining population status and trends at the field station, Regional, and national levels. Population surveys on private lands will provide important additional information on local and Regional population trends; coordination with other agencies and organizations will ensure that monitoring on private lands is done where necessary.

The adequacy of existing census techniques will be examined to determine whether or not new methodologies are needed to properly monitor certain species or groups. Within the Service, development of new techniques is primarily the responsibility of Research and MBMO's Branch of Surveys; operational application of newly-developed techniques will be a Regional responsibility.

- b) Identify nongame bird species of concern. With literally hundreds of species of nongame birds occurring in the Region, it is clear that efforts will have to be focused on those species whose populations are small, declining, unstable, and/or dependent on restricted, specialized, or threatened habitats. MBMO has identified 14 such species in Region 3, including 5 species that are candidates for inclusion on the Federal list of Threatened and Endangered species (U. S. Fish and Wildlife Service 1987): Common Loon, American Bittern, Least Bittern, Northern Harrier, Red-shouldered Hawk, Black Rail, Black Tern (candidate species), Barn Owl, Loggerhead Shrike (candidate), Bell's Vireo, Golden-winged Warbler, Cerulean Warbler (candidate), Bachman's Sparrow (candidate), and Henslow's Sparrow (candidate). Recently, MBMO added more species to its national "concern" list (U. S. Fish and Wildlife Service 1990a). State agencies in Region 3 have designated these and/or other species on their respective special concern lists (see Lewis and Seitz 1988).

Information from population monitoring programs will be useful in updating and consolidating the MBMO and State lists. Other sources, such as the Service's candidate species list, Natural Heritage databases, the National Audubon Society "Blue List" (Tate 1986), and the International Council for Bird Preservation "Birds to Watch" list, will also be used to determine additional species that may deserve priority attention in Region 3.

Concern has been raised over recent declines in populations of many neotropical migrant forest birds, e. g., those species that breed in North America and winter in Latin America and the Caribbean (Terborgh 1989, Askins et al. 1990). These species, which include thrushes, warblers, vireos, flycatchers, and others, are being affected by the dual problems of forest fragmentation on the breeding grounds and deforestation in the tropics. The Fish and Wildlife Service, Forest Service, and other agencies and organizations have initiated a coordinated effort to address the needs of neotropical migrants (see Neotropical Migratory Bird Workshop Participants 1991) and these species will be a high priority in Region 3.

2) IDENTIFY FACTORS THAT LIMIT NONGAME BIRDS, PARTICULARLY SPECIES OF CONCERN

Population monitoring efforts will identify patterns of distribution and abundance of nongame birds. To further determine what factors might affect those patterns, new research and synthesis of existing information must be undertaken. This will enhance management of nongame bird species and also allow evaluation of environmental impacts on these species.

- a) Conduct new research. Research conducted by the Service, other agencies, and universities will be necessary to identify the impacts of environmental changes (e. g., habitat fragmentation, contaminants, urbanization), human activities, and other factors on nongame birds. Research also can develop improved population monitoring techniques for nongame birds and determine best management practices. Small-scale "management studies" done on individual refuges can contribute important information that is useful in nongame bird management and will be encouraged.
- b) Synthesize available information. There is a vast amount of technical information already available on the factors that are limiting nongame birds and what management techniques can be used to enhance populations and habitats of these species. To be useful to management biologists, this information must be compiled and synthesized. Examples of this type of approach are the Service's series of Regional nongame bird

workshop proceedings (Lewis and Seitz 1988, Wells 1989, Office of Information Transfer 1990), Region 3's series of status reports on nongame bird species of concern in the Northcentral U. S. (Hands et al. 1989), Region 3's guidelines on shorebird management (Eldridge 1990), and Region 4's handbook for nongame bird management and monitoring in the Southeast (Hunter 1990). These efforts have been very useful and similar documents will be prepared and disseminated as needs are identified. Workshops and other training opportunities will also be used to keep biologists abreast of the latest information on management and monitoring techniques and other issues related to nongame birds.

3) IMPLEMENT MANAGEMENT ACTIONS THAT ENHANCE POPULATIONS OF NONGAME BIRDS, PARTICULARLY SPECIES OF CONCERN

Management actions for nongame birds will focus on four areas (described below): habitat preservation, habitat management, population management, and people management. Information obtained from Task 2 will be used to develop guidelines for habitat, population, and people management. Special attention will be given to species of concern that are identified under Task 1b and other species prone to local extinction due to their life history characteristics (low reproductive rate, poor colonizing ability, high mortality) or limiting factors. For efficiency, management efforts will, where possible, focus on guilds, or groups of species using similar habitats and other resources, rather than on individual species. In many situations, avian diversity (species richness) may be a desired goal. However, management for diversity may adversely impact individual species and effects on rare species will be considered before such management is undertaken.

Region 3's management activities will be concentrated on lands under Service control, e. g., National Wildlife Refuges, Wetland Management Districts, National Fish Hatcheries, and Conservation Reserve and Farmer's Home Administration easement lands. The extent to which a particular parcel of Service land is managed for nongame birds will depend largely on the purposes for which the area was established. On some areas, management will be intensive, but on others, species such as waterfowl or endangered species will take precedence and benefits to nongame birds will generally be incidental.

When possible, the Region will offer technical assistance and information to other agencies and private individuals interested in managing their lands for nongame birds. When reviewing proposed Federal projects (those undertaken, funded, or permitted by Federal agencies) in the Region, the Service will comment on potentially adverse impacts on biotic resources and recommend management and mitigation actions that will enhance nongame

birds and their habitats. The Region will take advantage of all legal authorities at its disposal (see Appendix B) to minimize or prevent disturbance or destruction of nongame birds and degradation of their habitats.

- a) Preserve essential habitat. As reviewed in Appendix B, numerous laws give the Service authority to preserve migratory bird habitat. Habitats and habitat components that are critical to maintaining populations of nongame bird species of concern will be identified and protected when possible through fee title acquisition, easements, leases, cooperative agreements, regulatory means, and project and permit review activities.

Examples of important nongame bird habitats and habitat components include wetlands, riparian areas, old-growth forests, heron rookeries, nest and cavity trees, cliffs, roosting sites, and feeding areas. The Western Hemisphere Shorebird Reserve Network identifies critical foraging and staging areas for migrating shorebirds (Myers et al. 1987). Region 3 will continue to support this effort by protecting and managing significant shorebird migration habitat on Service lands.

- b) Manage habitat. Habitat management techniques for nongame birds are similar to those used for game birds; only the prescriptions for applying the techniques vary (see Lewis and Seitz 1988, Wells 1989, Hunter 1990, and Office of Information Transfer 1990). Nongame bird habitat can be enhanced by such activities as wetland creation/restoration, water level manipulation, vegetation planting and cutting, prescribed burning, snag retention, and nesting island creation. Erection and maintenance of nest boxes and structures may be useful in enhancing certain songbird and raptor species if natural cavities and nesting areas are limiting.

Any habitat manipulation involves a trade-off between species that benefit from the change and those that do not. Some habitat management activities undertaken for game species will enhance, or at least be neutral to, nongame birds. However, other game management activities may adversely affect nongame birds. The challenge to wildlife managers will be to understand how various management actions affect nongame birds and, where other management priorities allow, to maximize benefits to nongame species of concern.

Biodiversity is a priority issue within the Fish and Wildlife Service. With respect to nongame birds, it is important to recognize that although habitat diversification usually leads to an increase in species richness locally, it may eliminate or drastically decrease the abundance of certain area-sensitive species (see Robinson 1988, Hunter 1990). The evidence

for this is especially compelling for neotropical migrant forest songbirds (Terborgh 1989, Neotropical Migratory Bird Workshop Participants 1991). Therefore, it may not always be desirable to increase species diversity per se if it is at the expense of rare species. Robinson (1988) found that setting back forest succession and creating more edge habitat maximized local bird species diversity but, in the process, fragmented large habitat patches that were important to rare species, thereby threatening regional species diversity. This points out the need to make decisions about habitat diversification on a case-by-case basis after considering what the species of concern are in a particular management area. It will be necessary to identify such species and incorporate appropriate management recommendations for them into planning documents.

- c) Manage populations. Animal husbandry techniques such as captive rearing and hacking will generally not be used by the Service to manage nongame birds in Region 3. However, some species, e. g., Trumpeter Swans and raptors, may benefit from such approaches.

Where predation is a known limiting factor to nongame bird populations, it may be necessary to undertake appropriate control measures. Population control of certain nongame birds may be necessary when they increase to the point of creating nuisance or health problems. Cowbird parasitism is believed to be a major limiting factor for many songbird species and could eventually require population control measures.

- d) Manage people. Human disturbance from recreation, development, or purposeful harassment adversely affects many nongame bird species. Where necessary, posting, law enforcement, and public education efforts will be used to address these problems.

4) ENHANCE THE PUBLIC'S KNOWLEDGE AND APPRECIATION OF NONGAME BIRDS

Ultimately, the conservation of nongame birds is tied to the public. It is, therefore, crucial to educate people about these species and the factors limiting them, and to encourage people to enjoy nongame birds in their recreational pursuits.

- a) Provide viewing opportunities. As indicated previously, birdwatching is a very popular activity. Many public lands, especially those in the National Wildlife Refuge System, already offer outstanding opportunities for viewing nongame birds in their natural habitats. Facilities such as hiking trails, auto-tour routes, wetland boardwalks, observation decks and blinds, and viewing towers provide especially effective means for people

to observe birds. Additional high-value viewing areas will be identified and created where appropriate. The Region could also, through easements, leases, and agreements, make prime nongame bird viewing areas on private lands accessible to bird watchers. A cooperative program entitled Watchable Wildlife was recently initiated to identify, publicize, and provide access to areas (especially public lands) where people can observe and learn about wildlife (Vickerman 1989). The above efforts will mesh well with this program.

When deciding how, when, and where to provide opportunities for people to view nongame birds, the possible adverse impacts of such public use on the target species, other wildlife, and habitat must always be considered.

- b) Prepare and provide interpretive materials. Signs and leaflets will be used to inform people about nongame bird nesting sites, habitat requirements, management techniques, etc. on refuges, along trails, and at viewing areas. It is particularly important to interpret the concepts of habitat management since many people may not understand the need for such manipulative activities as wetland drawdowns, prescribed burning, and tree cutting. Demonstration areas near refuge visitor centers can also be very effective in showing people how to use landscaping, along with feeders, bird baths, and nest boxes, to attract birds to their yards.
- c) Prepare and distribute educational materials. Signs, leaflets, audiovisual programs, and lectures will be used to inform people about nongame birds. Some examples of possible subject matter for these media include: species identification, life history information, values and ecological requirements of nongame birds, current threats to nongame birds, feeding of and landscaping for nongame birds, and the role of the National Wildlife Refuge System in providing north-south linkages for migratory birds.

5) ENHANCE COMMUNICATION AND COOPERATION WITHIN AND OUTSIDE THE SERVICE ON NONGAME BIRD ISSUES

- a) Enhance coordination among offices within the Service. A number of Service offices deal directly or incidentally with issues that affect nongame birds. To accomplish the above tasks effectively, Service biologists must establish a network that will enhance the transfer of information on nongame bird management. This information transfer will occur through dissemination and exchange of written documents, periodic training workshops, and attendance at professional meetings. Within the Region, the Regional Nongame Bird Specialist and the Migratory Bird Coordinator are the primary individuals coordinating activities related to

nongame birds. Regional offices that these individuals interact with include the Wildlife Associate Managers; Office of Refuge Biology; Joint Venture Coordinator; Private Lands Coordinator; Public Use Coordinator; Divisions of Endangered Species, Federal Activities, Environmental Contaminants, Federal Aid, Fisheries, and Law Enforcement; and Refuges and Wildlife, Fish and Wildlife Enhancement, and Fisheries field stations. Primary contacts with Service offices outside of the Region are with the Office of Migratory Bird Management, other Regional Nongame Bird Specialists and Regional Migratory Bird Coordinators, the Office of Information Transfer, and various Research and Development offices and laboratories.

To enhance nongame bird management on National Wildlife Refuge System lands in Region 3, an assessment will be made of survey, management, research, and information/education activities that are now benefiting or could further enhance nongame birds and their habitats on National Wildlife Refuges and Wetland Management Districts. The following information will be compiled for each field station: key species and groups of nongame birds using the area; important habitat types; current survey, habitat and population management, research, and information and education activities undertaken specifically for nongame birds; current survey, habitat and population management, research, and information and education activities undertaken for other wildlife species that incidentally benefit nongame birds; potential management activities that could be done specifically for nongame birds; and information, personnel, equipment, and funding needs for future activities. Results of this survey will permit better planning and coordination of nongame bird population monitoring, management, research, and public use activities on National Wildlife Refuge System lands in the Region.

- b) Enhance coordination with other agencies and organizations. As reviewed in Appendix B, numerous legal authorities require the Service to interact with other agencies on matters that impact nongame birds and their habitats. In addition, the Service can and will work cooperatively with public agencies, conservation organizations, and private individuals through partnerships designed to address projects of mutual concern. Such efforts will be essential to effectively monitor and manage an international resource like migratory birds; the task is too large for the Service to accomplish alone. The Region's role in partnerships will vary from one of leadership to one of simply providing technical assistance. The Challenge Grant program offers great potential for accomplishing nongame bird projects on Service lands when matching monies, equipment, or in-kind services are available from other agencies and organizations. The success of this program and the North American

Waterfowl Management Plan Joint Ventures demonstrate the potential benefits of partnerships.

At the Regional Office level, the Regional Nongame Bird Specialist and the Migratory Bird Coordinator will have primary responsibility for increasing the Region's interactions with other agencies and organizations that are involved in nongame bird survey, management, research, and information/education activities. Field stations will do the same at the local level whenever possible.

Because most States in Region 3 have well-developed nongame programs, joint efforts with State agencies will be emphasized. This approach has proven of mutual benefit in the past (see Appendix C). State nongame programs vary considerably in funding levels and priorities (see Lewis and Seitz 1988). The Region may be able to offer a broader perspective and more unified approach on nongame bird issues than individual States perhaps can. This will ensure that nongame bird activities are considered on a Regional, as well as State, level. One example would be multi-state population monitoring efforts. Another role that the Region might play is to serve as a clearinghouse for information exchange among States and other agencies and organizations. This would, among other things, minimize duplicative efforts, thereby making more efficient use of funds and personnel.

In addition to State natural resource agencies, there are numerous other entities involved in nongame bird activities, with which the Region will maintain liaison. Other governmental agencies include the Forest Service, National Park Service, Army Corps of Engineers, Department of Defense, Bureau of Indian Affairs, Soil Conservation Service, Agricultural Stabilization and Conservation Service, Environmental Protection Agency, and agencies managing county and municipal wildlife areas. Many of these agencies control large amounts of land that provide important nongame bird habitat. The Region will also interact with nongovernmental organizations such as the Nature Conservancy (including State Heritage Programs), Wildlife Society, National Audubon Society, National Wildlife Federation, Indian tribes and groups, ornithological organizations, universities, and zoos. The Region will communicate with these entities to exchange information, coordinate survey, management, research, and information/education activities, and undertake other cooperative ventures when possible.

A summary of subtasks that will be undertaken to accomplish the above tasks appears in Appendix E.

FUNDING AND PERSONNEL NEEDS

Preliminary estimates of Regional funding and personnel (full-time equivalents) needs for initial implementation of this plan follow. These estimates assume that present activities of Refuges and Wildlife and Fish and Wildlife Enhancement offices in Region 3 that are directed at or that incidentally benefit nongame birds will continue.

<u>Year</u>	<u>Management*</u>	<u>Grants to Other Agencies**</u>	<u>Nongame Bird Specialist***</u>	<u>Total</u>
FY92	\$92K / 1 FTE	\$50K / 0 FTE	\$56K / 1 FTE	\$198K / 2 FTE
FY93	\$180K / 2 FTE	\$75K / 0 FTE	\$58K / 1 FTE	\$313K / 3 FTE
FY94	\$267K / 3 FTE	\$100K / 0 FTE	\$60K / 1 FTE	\$427K / 4 FTE

* Includes population surveys, research, habitat management, people management, and information and education activities, primarily on Service lands.

** Includes above activities off Service lands and contracts to accomplish some activities on Service lands.

*** Includes salary, benefits, travel, and incidental expenses.

As the Region progresses in gathering information on nongame bird populations and habitats, and in networking with other agencies and organizations, it will be possible to better establish priorities for management activities. This will allow additional funding and personnel needs to be identified and the above estimates to be refined.

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APPENDIX A

PRELIMINARY LIST OF BIRDS OCCURRING IN

THE NORTHCENTRAL UNITED STATES

STATUS OF BIRDS OF FISH AND WILDLIFE SERVICE REGION 3
(based on DeSante and Pyle 1986)

Status Codes:

p = permanent resident = 104 species
s = summer resident (primarily) = 122 species
w = winter resident (primarily) = 23 species
r = rare (<10% of days afield) = 56 species
t = transient (migrant) = 31 species
v = vagrant (outside established range) = 26 species
x = extremely rare (accidental) = 94 species
e = extirpated (no records in past 50 yrs) = 8 species
E = Extinct = 2 species
Total Species = 466

SPECIES	R3	M	H	G	I
Red-throated Loon	t	Y	N	N	N
Pacific Loon	v	N	N	N	N
Common Loon	s	Y	N	N	N
Yellow-billed Loon	x	Y	N	N	N
Pied-billed Grebe	p	Y	N	N	N
Horned Grebe	r	Y	N	N	N
Red-necked Grebe	s	Y	N	N	N
Eared Grebe	r	Y	N	N	N
Western Grebe	r	Y	N	N	N
Clark's Grebe	x	N	N	N	N
Black-capped Petrel	e	Y	N	N	N
Leach's Storm-Petrel	e	Y	N	N	N
Band-rumped Storm-Petrel	x	Y	N	N	N
Northern Gannet	v	Y	N	N	N
American White Pelican	r	Y	N	N	N
Brown Pelican	x	Y	N	N	N
Double-crested Cormorant	p	Y	N	N	N
Olivaceous Cormorant	e	Y	N	N	N
Anhinga	x	Y	N	N	N
Magnificent Frigatebird	x	Y	N	N	N
American Bittern	s	Y	N	N	N
Least Bittern	s	Y	N	N	N
Great Blue Heron	p	Y	N	N	N
Great Egret	s	Y	N	N	N
Snowy Egret	r	Y	N	N	N
Little Blue Heron	r	Y	N	N	N
Tricolored Heron	v	Y	N	N	N
Reddish Egret	x	Y	N	N	N
Cattle Egret	s	Y	N	N	N
Green-backed Heron	s	Y	N	N	N
Black-crowned Night-Heron	s	Y	N	N	N
Yellow-crowned Night-Heron	s	Y	N	N	N
White Ibis	x	Y	N	N	N
Glossy Ibis	v	Y	N	N	N
White-faced Ibis	t	Y	N	N	N
Roseate Spoonbill	x	Y	N	N	N
Wood Stork	x	Y	N	N	N
Fulvous Whistling-Duck	x	Y	Y	N	N

M = covered by Migratory Bird Treaty Act

H = hunted species

G = resident game species

I = introduced species

SPECIES	R3	M	H	G	I
Black-bellied Whistling-Duck	x	Y	Y	N	N
Tundra Swan	r	Y	Y	N	N
Trumpeter Swan	x	Y	N	N	N
Mute Swan	p	N	N	N	Y
Bean Goose	x	Y	N	N	N
Greater White-fronted Goose	r	Y	Y	N	N
Snow Goose	w	Y	Y	N	N
Ross' Goose	r	Y	Y	N	N
Brant	r	Y	Y	N	N
Canada Goose	p	Y	Y	N	N
Wood Duck	p	Y	Y	N	N
Green-winged Teal	p	Y	Y	N	N
American Black Duck	p	Y	Y	N	N
Mallard	p	Y	Y	N	N
Northern Pintail	p	Y	Y	N	N
Garganey	x	Y	N	N	N
Blue-winged Teal	s	Y	Y	N	N
Cinnamon Teal	w	Y	Y	N	N
Northern Shoveler	s	Y	Y	N	N
Gadwall	p	Y	Y	N	N
Eurasian Wigeon	v	Y	N	N	N
American Wigeon	p	Y	Y	N	N
Canvasback	p	Y	Y	N	N
Redhead	s	Y	Y	N	N
Ring-necked Duck	p	Y	Y	N	N
Tufted Duck	x	Y	N	N	N
Lesser Scaup	p	Y	Y	N	N
Common Eider	x	Y	Y	N	N
King Eider	v	Y	Y	N	N
Greater Scaup	w	Y	Y	N	N
Harlequin Duck	r	Y	Y	N	N
Oldsquaw	w	Y	Y	N	N
Black Scoter	t	Y	Y	N	N
Surf Scoter	t	Y	Y	N	N
White-winged Scoter	r	Y	Y	N	N
Common Goldeneye	p	Y	Y	N	N
Barrow's Goldeneye	v	Y	Y	N	N
Bufflehead	w	Y	Y	N	N
Hooded Merganser	p	Y	Y	N	N
Common Merganser	p	Y	Y	N	N
Red-breasted Merganser	p	Y	Y	N	N
Ruddy Duck	p	Y	Y	N	N
Masked Duck	e	Y	N	N	N
Black Vulture	r	Y	N	N	N
Turkey Vulture	p	Y	N	N	N
Osprey	s	Y	N	N	N
American Swallow-tailed Kite	x	Y	N	N	N
Black-shouldered Kite	x	Y	N	N	N
Mississippi Kite	r	Y	N	N	N
Bald Eagle	p	Y	N	N	N
Northern Harrier	p	Y	N	N	N
Sharp-shinned Hawk	p	Y	N	N	N
Cooper's Hawk	p	Y	N	N	N
Northern Goshawk	p	Y	N	N	N
Harris' Hawk	e	Y	N	N	N
Red-shouldered Hawk	p	Y	N	N	N

SPECIES	R3	M	H	G	I
Broad-winged Hawk	s	Y	N	N	N
Swainson's Hawk	s	Y	N	N	N
Red-tailed Hawk	p	Y	N	N	N
Ferruginous Hawk	v	Y	N	N	N
Rough-legged Hawk	w	Y	N	N	N
Golden Eagle	r	Y	N	N	N
American Kestrel	p	Y	N	N	N
Merlin	r	Y	N	N	N
Gyr Falcon	r	Y	N	N	N
Prairie Falcon	v	Y	N	N	N
Gray Partridge	p	N	N	Y	Y
Chukar	r	N	N	Y	Y
Ring-necked Pheasant	p	N	N	Y	Y
Spruce Grouse	p	N	N	Y	N
Willow Ptarmigan	v	N	N	Y	N
Ruffed Grouse	p	N	N	Y	N
Greater Prairie-Chicken	p	N	N	Y	N
Sharp-tailed Grouse	p	N	N	Y	N
Wild Turkey	p	N	N	Y	N
Northern Bobwhite	p	N	N	Y	N
Yellow Rail	s	Y	N	N	N
Black Rail	r	Y	N	N	N
King Rail	s	Y	Y	N	N
Virginia Rail	s	Y	Y	N	N
Sora	s	Y	Y	N	N
Purple Gallinule	v	Y	Y	N	N
Common Moorhen	s	Y	Y	N	N
American Coot	p	Y	Y	N	N
Sandhill Crane	s	Y	Y	N	N
Black-bellied Plover	t	Y	N	N	N
Lesser Golden-Plover	t	Y	N	N	N
Snowy Plover	x	Y	N	N	N
Wilson's Plover	x	Y	N	N	N
Semipalmated Plover	t	Y	N	N	N
Piping Plover	s	Y	N	N	N
Killdeer	p	Y	N	N	N
Mountain Plover	x	Y	N	N	N
Black-necked Stilt	x	Y	N	N	N
American Avocet	r	Y	N	N	N
Greater Yellowlegs	t	Y	N	N	N
Lesser Yellowlegs	t	Y	N	N	N
Spotted Redshank	x	Y	N	N	N
Solitary Sandpiper	t	Y	N	N	N
Willet	r	Y	N	N	N
Spotted Sandpiper	s	Y	N	N	N
Upland Sandpiper	s	Y	N	N	N
Eskimo Curlew	e	Y	N	N	N
Whimbrel	t	Y	N	N	N
Long-billed Curlew	r	Y	N	N	N
Hudsonian Godwit	t	Y	N	N	N
Marbled Godwit	r	Y	N	N	N
Ruddy Turnstone	t	Y	N	N	N
Black Turnstone	x	Y	N	N	N
Red Knot	t	Y	N	N	N
Sanderling	t	Y	N	N	N
Semipalmated Sandpiper	t	Y	N	N	N

SPECIES	R3	M	H	G	I
Western Sandpiper	t	Y	N	N	N
Rufous-necked Stint	x	Y	N	N	N
Least Sandpiper	t	Y	N	N	N
White-rumped Sandpiper	t	Y	N	N	N
Baird's Sandpiper	t	Y	N	N	N
Pectoral Sandpiper	t	Y	N	N	N
Sharp-tailed Sandpiper	x	Y	N	N	N
Purple Sandpiper	v	Y	N	N	N
Dunlin	r	Y	N	N	N
Curlew Sandpiper	x	Y	N	N	N
Stilt Sandpiper	t	Y	N	N	N
Buff-breasted Sandpiper	t	Y	N	N	N
Ruff	v	Y	N	N	N
Short-billed Dowitcher	t	Y	N	N	N
Long-billed Dowitcher	t	Y	N	N	N
Common Snipe	s	Y	Y	N	N
Eurasian Woodcock	x	Y	N	N	N
American Woodcock	s	Y	Y	N	N
Wilson's Phalarope	s	Y	N	N	N
Red-necked Phalarope	t	Y	N	N	N
Red Phalarope	r	Y	N	N	N
Pomarine Jaeger	v	Y	N	N	N
Parasitic Jaeger	t	Y	N	N	N
Long-tailed Jaeger	v	Y	N	N	N
South Polar Skua	x	Y	N	N	N
Laughing Gull	r	Y	N	N	N
Franklin's Gull	s	Y	N	N	N
Little Gull	r	Y	N	N	N
Common Black-headed Gull	v	Y	N	N	N
Bonaparte's Gull	w	Y	N	N	N
Heerman's Gull	x	Y	N	N	N
Mew Gull	x	Y	N	N	N
Ring-billed Gull	p	Y	N	N	N
California Gull	v	Y	N	N	N
Herring Gull	p	Y	N	N	N
Thayer's Gull	r	Y	N	N	N
Iceland Gull	r	Y	N	N	N
Lesser Black-backed Gull	v	Y	N	N	N
Slaty-backed Gull	x	Y	N	N	N
Western Gull	x	Y	N	N	N
Glaucous Gull	r	Y	N	N	N
Great Black-backed Gull	p	Y	N	N	N
Black-legged Kittiwake	r	Y	N	N	N
Ross' Gull	x	Y	N	N	N
Sabine's Gull	v	Y	N	N	N
Ivory Gull	x	Y	N	N	N
Caspian Tern	s	Y	N	N	N
Roseate Tern	x	Y	N	N	N
Common Tern	s	Y	N	N	N
Arctic Tern	x	Y	N	N	N
Forster's Tern	s	Y	N	N	N
Least Tern	r	Y	N	N	N
Sooty Tern	x	Y	N	N	N
Large-billed Tern	x	N	N	N	N
White-winged Tern	x	Y	N	N	N
Black Tern	s	Y	N	N	N

SPECIES	R3	M	H	G	I
Black Skimmer	x	Y	N	N	N
Dovekie	x	Y	N	N	N
Thick-billed Murre	x	Y	N	N	N
Marbled Murrelet	x	Y	N	N	N
Kittlitz' Murrelet	x	Y	N	N	N
Ancient Murrelet	x	Y	N	N	N
Atlantic Puffin	x	Y	N	N	N
Rock Dove	p	N	N	N	Y
Band-tailed Pigeon	x	Y	Y	N	N
Mourning Dove	p	Y	Y	N	N
Passenger Pigeon	E	N	N	N	N
Inca Dove	p	Y	N	N	N
Common Ground-Dove	x	Y	N	N	N
Carolina Parakeet	E	N	N	N	N
Black-billed Cuckoo	s	Y	N	N	N
Yellow-billed Cuckoo	s	Y	N	N	N
Greater Roadrunner	r	Y	N	N	N
Smooth-billed Ani	v	Y	N	N	N
Barn Owl	r	Y	N	N	N
Eastern Screech-Owl	p	Y	N	N	N
Great Horned Owl	p	Y	N	N	N
Snowy Owl	w	Y	N	N	N
Northern Hawk Owl	w	Y	N	N	N
Burrowing Owl	r	Y	N	N	N
Barred Owl	p	Y	N	N	N
Great Gray Owl	w	Y	N	N	N
Long-eared Owl	p	Y	N	N	N
Short-eared Owl	p	Y	N	N	N
Boreal Owl	w	Y	N	N	N
Northern Saw-whet Owl	p	Y	N	N	N
Common Nighthawk	s	Y	N	N	N
Common Poorwill	x	Y	N	N	N
Chuck-will's-widow	s	Y	N	N	N
Whip-poor-will	s	Y	N	N	N
Black Swift	x	Y	N	N	N
Chimney Swift	s	Y	N	N	N
White-throated Swift	x	Y	N	N	N
Ruby-throated Hummingbird	s	Y	N	N	N
Rufous Hummingbird	x	Y	N	N	N
Belted Kingfisher	p	Y	N	N	N
Lewis' Woodpecker	x	Y	N	N	N
Red-headed Woodpecker	p	Y	N	N	N
Red-bellied Woodpecker	p	Y	N	N	N
Yellow-bellied Sapsucker	p	Y	N	N	N
Red-naped Sapsucker	x	Y	N	N	N
Williamson's Sapsucker	x	Y	N	N	N
Downy Woodpecker	p	Y	N	N	N
Hairy Woodpecker	p	Y	N	N	N
Red-cockaded Woodpecker	x	Y	N	N	N
Three-toed Woodpecker	r	Y	N	N	N
Black-backed Woodpecker	p	Y	N	N	N
Northern Flicker	p	Y	N	N	N
Pileated Woodpecker	p	Y	N	N	N
Ivory-billed Woodpecker	e	Y	N	N	N
Olive-sided Flycatcher	s	Y	N	N	N
Western Wood-Pewee	x	Y	N	N	N

SPECIES	R3	M	H	G	I
Eastern Wood-Pewee	s	Y	N	N	N
Yellow-bellied Flycatcher	s	Y	N	N	N
Acadian Flycatcher	s	Y	N	N	N
Alder Flycatcher	s	Y	N	N	N
Willow Flycatcher	s	Y	N	N	N
Least Flycatcher	s	Y	N	N	N
Black Phoebe	x	Y	N	N	N
Eastern Phoebe	s	Y	N	N	N
Say's Phoebe	r	Y	N	N	N
Vermilion Flycatcher	x	Y	N	N	N
Ash-throated Flycatcher	x	Y	N	N	N
Great Crested Flycatcher	s	Y	N	N	N
Cassin's Kingbird	x	Y	N	N	N
Western Kingbird	s	Y	N	N	N
Eastern Kingbird	s	Y	N	N	N
Gray Kingbird	x	Y	N	N	N
Scissor-tailed Flycatcher	r	Y	N	N	N
Fork-tailed Flycatcher	x	Y	N	N	N
Horned Lark	p	Y	N	N	N
Purple Martin	s	Y	N	N	N
Carolina Wren	p	Y	N	N	N
Tree Swallow	s	Y	N	N	N
Violet-green Swallow	x	Y	N	N	N
Northern Rough-winged Swallow	s	Y	N	N	N
Bank Swallow	s	Y	N	N	N
Cliff Swallow	s	Y	N	N	N
Barn Swallow	s	Y	N	N	N
Gray Jay	p	Y	N	N	N
Blue Jay	p	Y	N	N	N
Pinyon Jay	x	Y	N	N	N
Clark's Nutcracker	v	Y	N	N	N
Black-billed Magpie	w	Y	N	N	N
American Crow	p	Y	N	N	N
Fish Crow	r	Y	N	N	N
Common Raven	p	Y	N	N	N
Black-capped Chickadee	p	Y	N	N	N
Carolina Chickadee	p	Y	N	N	N
Boreal Chickadee	p	Y	N	N	N
Tufted Titmouse	p	Y	N	N	N
Red-breasted Nuthatch	p	Y	N	N	N
White-breasted Nuthatch	p	Y	N	N	N
Pygmy Nuthatch	x	Y	N	N	N
Brown-headed Nuthatch	x	Y	N	N	N
Brown Creeper	p	Y	N	N	N
Rock Wren	x	Y	N	N	N
Bewick's Wren	s	Y	N	N	N
House Wren	s	Y	N	N	N
Winter Wren	p	Y	N	N	N
Sedge Wren	s	Y	N	N	N
Marsh Wren	s	Y	N	N	N
American Dipper	x	Y	N	N	N
Golden-crowned Kinglet	p	Y	N	N	N
Ruby-crowned Kinglet	p	Y	N	N	N
Blue-gray Gnatcatcher	s	Y	N	N	N
Northern Wheatear	x	Y	N	N	N
Eastern Bluebird	p	Y	N	N	N

SPECIES	R3	M	H	G	I
Townsend's Solitaire	r	Y	N	N	N
Mountain Bluebird	v	Y	N	N	N
Veery	s	Y	N	N	N
Gray-cheeked Thrush	t	Y	N	N	N
Swainson's Thrush	s	Y	N	N	N
Hermit Thrush	s	Y	N	N	N
Wood Thrush	s	Y	N	N	N
American Robin	p	Y	N	N	N
Varied Thrush	r	Y	N	N	N
Gray Catbird	s	Y	N	N	N
Northern Mockingbird	p	Y	N	N	N
Sage Thrasher	x	Y	N	N	N
Brown Thrasher	p	Y	N	N	N
Curve-billed Thrasher	x	Y	N	N	N
Water Pipit	t	Y	N	N	N
Sprague's Pipit	r	Y	N	N	N
Bohemian Waxwing	w	Y	N	N	N
Cedar Waxwing	p	Y	N	N	N
Northern Shrike	w	Y	N	N	N
Loggerhead Shrike	p	Y	N	N	N
European Starling	p	N	N	N	Y
White-eyed Vireo	s	Y	N	N	N
Bell's Vireo	s	Y	N	N	N
Gray Vireo	x	Y	N	N	N
Solitary Vireo	s	Y	N	N	N
Yellow-throated Vireo	s	Y	N	N	N
Warbling Vireo	s	Y	N	N	N
Philadelphia Vireo	r	Y	N	N	N
Red-eyed Vireo	s	Y	N	N	N
Bachman's Warbler	e	Y	N	N	N
Blue-winged Warbler	s	Y	N	N	N
Golden-winged Warbler	s	Y	N	N	N
Tennessee Warbler	s	Y	N	N	N
Orange-crowned Warbler	t	Y	N	N	N
Nashville Warbler	s	Y	N	N	N
Virginia's Warbler	x	Y	N	N	N
Northern Parula	s	Y	N	N	N
Yellow Warbler	s	Y	N	N	N
Chestnut-sided Warbler	s	Y	N	N	N
Magnolia Warbler	s	Y	N	N	N
Cape May Warbler	s	Y	N	N	N
Black-throated Blue Warbler	s	Y	N	N	N
Yellow-rumped Warbler	p	Y	N	N	N
Black-throated Gray Warbler	x	Y	N	N	N
Townsend's Warbler	x	Y	N	N	N
Hermit Warbler	x	Y	N	N	N
Black-throated Green Warbler	s	Y	N	N	N
Blackburnian Warbler	s	Y	N	N	N
Yellow-throated Warbler	s	Y	N	N	N
Pine Warbler	s	Y	N	N	N
Kirtland's Warbler	r	Y	N	N	N
Prairie Warbler	s	Y	N	N	N
Palm Warbler	r	Y	N	N	N
Bay-breasted Warbler	s	Y	N	N	N
Blackpoll Warbler	t	Y	N	N	N
Cerulean Warbler	s	Y	N	N	N

SPECIES	R3	M	H	G	I
Black-and-White Warbler	S	Y	N	N	N
American Redstart	S	Y	N	N	N
Prothonotary Warbler	S	Y	N	N	N
Worm-eating Warbler	S	Y	N	N	N
Swainson's Warbler	r	Y	N	N	N
Ovenbird	S	Y	N	N	N
Northern Waterthrush	S	Y	N	N	N
Louisiana Waterthrush	S	Y	N	N	N
Kentucky Warbler	S	Y	N	N	N
Connecticut Warbler	S	Y	N	N	N
Mourning Warbler	S	Y	N	N	N
MacGillivray's Warbler	X	Y	N	N	N
Common Yellowthroat	S	Y	N	N	N
Hooded Warbler	S	Y	N	N	N
Wilson's Warbler	r	Y	N	N	N
Canada Warbler	S	Y	N	N	N
Painted Redstart	X	Y	N	N	N
Yellow-breasted Chat	S	Y	N	N	N
Hepatic Tanager	X	Y	N	N	N
Summer Tanager	S	Y	N	N	N
Scarlet Tanager	S	Y	N	N	N
Western Tanager	v	Y	N	N	N
Northern Cardinal	p	Y	N	N	N
Rose-breasted Grosbeak	S	Y	N	N	N
Black-headed Grosbeak	v	Y	N	N	N
Blue Grosbeak	S	Y	N	N	N
Lazuli Bunting	v	Y	N	N	N
Indigo Bunting	S	Y	N	N	N
Painted Bunting	r	Y	N	N	N
Dickcissel	S	Y	N	N	N
Green-tailed Towhee	X	Y	N	N	N
Rufous-sided Towhee	p	Y	N	N	N
Bachman's Sparrow	r	Y	N	N	N
Cassin's Sparrow	X	Y	N	N	N
American Tree Sparrow	w	Y	N	N	N
Chipping Sparrow	S	Y	N	N	N
Clay-colored Sparrow	S	Y	N	N	N
Brewer's Sparrow	X	Y	N	N	N
Field Sparrow	p	Y	N	N	N
Vesper Sparrow	S	Y	N	N	N
Lark Sparrow	S	Y	N	N	N
Black-throated Sparrow	X	Y	N	N	N
Lark Bunting	v	Y	N	N	N
Savannah Sparrow	S	Y	N	N	N
Baird's Sparrow	X	Y	N	N	N
Grasshopper Sparrow	S	Y	N	N	N
Henslow's Sparrow	S	Y	N	N	N
Le Conte's Sparrow	p	Y	N	N	N
Sharp-tailed Sparrow	r	Y	N	N	N
Fox Sparrow	w	Y	N	N	N
Song Sparrow	p	Y	N	N	N
Lincoln's Sparrow	S	Y	N	N	N
Swamp Sparrow	p	Y	N	N	N
White-throated Sparrow	p	Y	N	N	N
Golden-crowned Sparrow	X	Y	N	N	N
White-crowned Sparrow	w	Y	N	N	N

SPECIES	R3	M	H	G	I
Harris' Sparrow	w	Y	N	N	N
Dark-eyed Junco	p	Y	N	N	N
McCown's Longspur	x	Y	N	N	N
Lapland Longspur	w	Y	N	N	N
Smith's Longspur	r	Y	N	N	N
Chestnut-collared Longspur	r	Y	N	N	N
Snow Bunting	w	Y	N	N	N
Bobolink	s	Y	N	N	N
Red-winged Blackbird	p	Y	N	N	N
Eastern Meadowlark	p	Y	N	N	N
Western Meadowlark	p	Y	N	N	N
Yellow-headed Blackbird	s	Y	N	N	N
Rusty Blackbird	r	Y	N	N	N
Brewer's Blackbird	s	Y	N	N	N
Great-tailed Grackle	r	Y	N	N	N
Common Grackle	p	Y	N	N	N
Bronzed Cowbird	x	Y	N	N	N
Brown-headed Cowbird	p	Y	N	N	N
Orchard Oriole	s	Y	N	N	N
Northern Oriole	s	Y	N	N	N
Scott's Oriole	x	Y	N	N	N
Brambling	x	Y	N	N	N
Rosy Finch	x	Y	N	N	N
Pine Grosbeak	w	Y	N	N	N
Purple Finch	p	Y	N	N	N
House Finch	p	Y	N	N	N
Red Crossbill	p	Y	N	N	N
White-winged Crossbill	w	Y	N	N	N
Common Redpoll	w	Y	N	N	N
Hoary Redpoll	r	Y	N	N	N
Pine Siskin	p	Y	N	N	N
Lesser Goldfinch	x	Y	N	N	N
American Goldfinch	p	Y	N	N	N
Evening Grosbeak	p	Y	N	N	N
House Sparrow	p	N	N	N	Y
Eurasian Tree Sparrow	r	N	N	N	Y

APPENDIX B

LEGAL AUTHORITIES RELATING TO NONGAME BIRDS

A number of Federal laws and treaties provide protection to migratory birds and their habitats. Some of these relate specifically to birds and others are more general and offer incidental benefits to birds. The Lacey Act, Convention for the Protection of Migratory Birds, Migratory Bird Treaty Act of 1918, and Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere were attempts to halt the unregulated killing, import, and/or sale of migratory birds. In 1903, Pelican Island, Florida, was set aside as the first National Wildlife Refuge, specifically to protect colonial nesting pelicans, cormorants, and waders. The passage of the Migratory Bird Conservation Act in 1929 authorized the purchase of land for Federal migratory bird refuges and the National Wildlife Refuge System became an important means of protecting migratory bird habitat. The Migratory Bird Hunting and Conservation Stamp Act, Wetlands Loan Act, Land and Water Conservation Act, Fish and Wildlife Coordination Act, Fish and Wildlife Act, Food Security Act, Agricultural Credit Act, and Emergency Wetlands Resources Act also provide mechanisms for migratory bird habitat protection through acquisition, leases, easements, and cooperative agreements.

Provisions of the Endangered Species Act can address many nongame bird needs. The Act has led to an awareness of protecting and enhancing species before they reach the point of having to be Federally listed as Threatened or Endangered. Although it provides direct protection only to listed species, the Act (Sections 4 and 6) also calls for monitoring and studying the status of candidate species to actively conserve species before they require protection through listing. Procedures such as interagency consultation (Section 7) and habitat conservation planning (Section 10) can allow for habitat protection and affirmative management not only for listed species, but also for the entire affected community of plants and animals.

The Federal Aid in Wildlife Restoration (Pittman-Robertson) Act established a grant-in-aid funding source for States to conduct wildlife projects, including land acquisition, management, planning, surveys, research, and development. Most Federal Aid projects are focused on game species, but nongame projects can be undertaken also, and nongame species benefit incidentally from the game projects. Similarly, wetland acquisition and management done under the Federal Aid in Fish Restoration (Dingell-Johnson) Act indirectly benefits nongame birds. The Sikes Act authorizes the Service to work cooperatively with States to develop wildlife management plans for Forest Service, Bureau of Land Management, Department of Defense, and Department of Energy lands. These plans can incorporate actions that will benefit nongame birds. A number of other laws and treaties, including the Bald Eagle Protection Act, National Wildlife Refuge System Administration Act, and Convention on International Trade in

Endangered Species of Wild Fauna and Flora (CITES), also provide direct or indirect benefits to nongame birds.

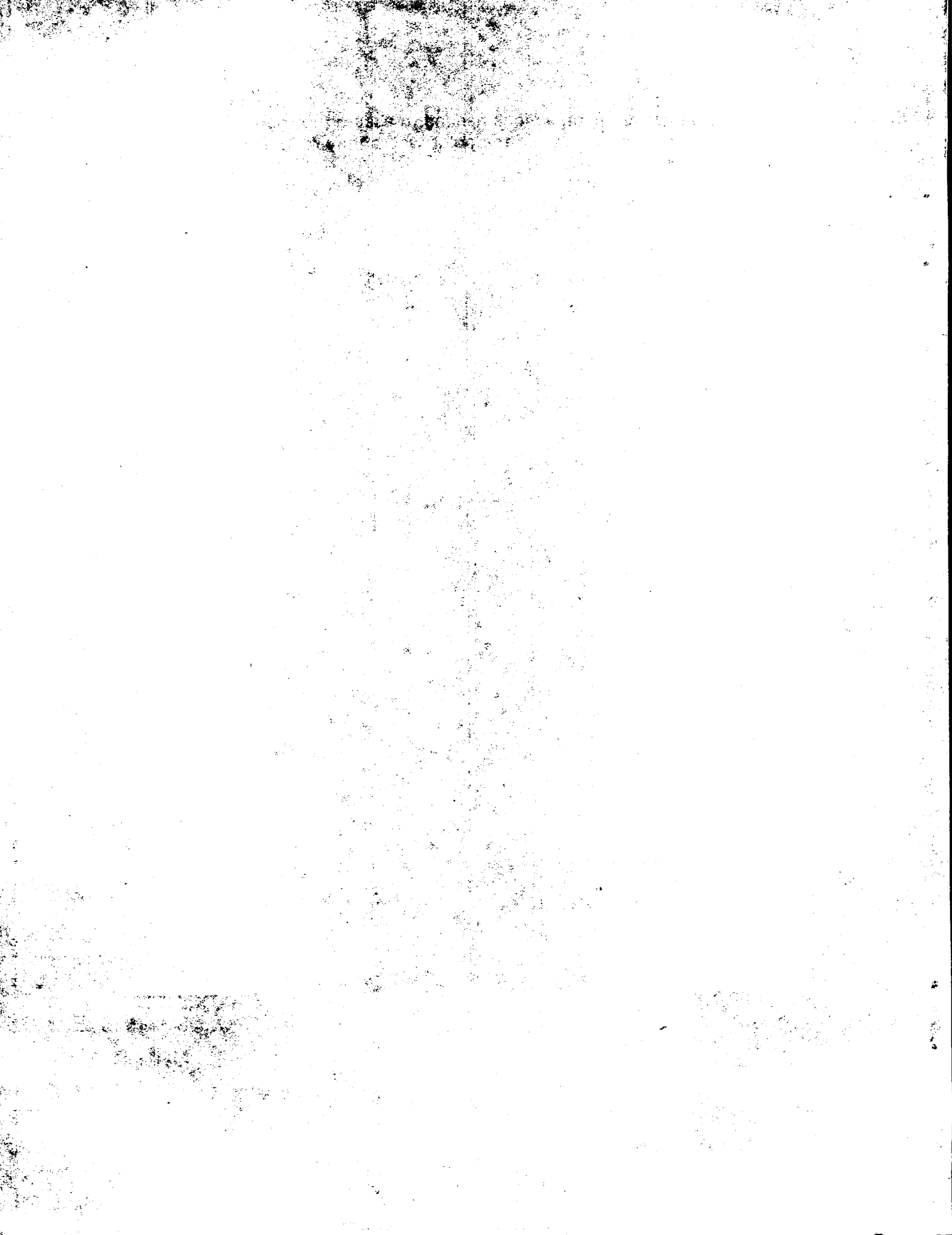
Several laws, including the Fish and Wildlife Coordination Act, National Environmental Policy Act, Clean Water Act (Section 404), Rivers and Harbors Act (Section 10), Federal Power Act, and Endangered Species Act require that the impacts of Federally-supported and/or -permitted activities on fish and wildlife be considered. Biological evaluations done in conjunction with these laws can result in the preservation and enhancement of, or at least neutral impacts on, nongame birds and their habitats through project modification and mitigation.

The law most directly related to nongame birds is the Fish and Wildlife Conservation Act, which was passed in 1980 in response to increased public interest in nongame and nonconsumptive uses of wildlife. It encouraged Federal and State agencies to conserve all nongame vertebrate species. The Act was originally designed to provide financial and technical assistance to States for developing and implementing nongame conservation programs and to encourage all Federal agencies to use their authority in promoting conservation of nongame to the maximum extent practical. Grant-in-aid funding was to be provided to States when they prepared nongame wildlife conservation plans and submitted corresponding project proposals. Unfortunately, the Administration has never requested, nor has Congress ever appropriated, any funds to support the Act. Nevertheless, most States have established good nongame and endangered species programs and Natural Heritage inventories to address the needs of nongame and special concern species.

In 1988, the Fish and Wildlife Conservation Act was amended to require the Service to undertake monitoring, research, and conservation activities in coordination with other governmental agencies and private organizations to assist in conserving migratory nongame birds as dictated under the Migratory Bird Treaty Act, Migratory Bird Conservation Act, and Section 8 of the Endangered Species Act invoking the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere. Specific responsibilities delegated to the Service in this amendment were:

- 1) Monitoring and assessing population trends and status of all nongame bird species.
- 2) Identifying the effects of environmental changes and human activities on nongame birds.
- 3) Identifying nongame birds that may, without additional conservation actions, become candidates for listing under the Endangered Species Act.

- 4) Identifying conservation actions needed to assure that nongame birds identified above do not reach the point where they require Federal listing for protection.



APPENDIX C

NONGAME BIRD MANAGEMENT ACTIVITIES SUPPORTED BY THE FISH AND WILDLIFE SERVICE IN THE NORTHCENTRAL U. S.

Since 1988, Congress has appropriated additional funds for the Fish and Wildlife Service to use in addressing nongame bird monitoring, management, and research needs. A portion of this money has been allocated for use in Region 3. Projects supported with these funds are listed below.

<u>Year</u>	<u>Project</u>	<u>Dollars</u>
1988	NONGAME BIRD WORKSHOP - this 2-day workshop was attended by 125 Service, State, and university biologists. Survey techniques, management guidelines, research activities, and State nongame program activities were discussed. A 360-page proceedings was published (Lewis and Seitz 1988).	\$25,000
1988	STATUS REPORTS ON 14 NONGAME BIRD SPECIES OF CONCERN - these reports review distribution, population status and trends, life history characteristics, limiting factors, management guidelines, and research needs of the Common Loon, American and Least Bitterns, Northern Harrier, Red-shouldered Hawk, Black Rail, Black Tern, Barn Owl, Loggerhead Shrike, Bell's Vireo, Golden-winged and Cerulean Warblers, and Bachman's and Henslow's Sparrows (Hands et al. 1989).	\$25,000
1988	COOPERATIVE STUDIES WITH STATE AGENCIES	
	1) Iowa Breeding Bird Atlas*	\$ 5,600
	2) Michigan Breeding Bird Atlas*	\$ 8,700
	3) Missouri Breeding Bird Atlas*	\$ 8,800
	4) Analysis of Breeding Bird Survey data for Ohio*	\$ 5,000
	5) Ornithological component of the Minnesota County Biological Survey*	\$ 1,500
	6) Raptor occurrence in relation to habitat structure in Indiana*	\$ 3,500

<u>Year</u>	<u>Project</u>	<u>Dollars</u>
	7) Tern and Bittern surveys in Iowa*	\$ 400
	8) Status of the Red-shouldered Hawk in Iowa*	\$ 1,800
	9) Common Loon survey of Minnesota*	\$ 2,500
	10) Forest bird surveys in the Shawnee National Forest, Illinois, in relation to forest fragmentation*	\$ 8,300
	11) Population status and breeding biology of the Loggerhead Shrike in Indiana*	\$ 5,900
	12) An evaluation of the causes for decline of the Loggerhead Shrike in Iowa*	\$ 1,000
	13) Assessment of Loggerhead Shrike habitat and over-winter mortality in Wisconsin*	\$ 8,500
	14) Henslow's Sparrow distribution, abundance, reproductive success, and habitat characteristics in Minnesota*	\$ 2,500
	15) Common Tern colony re-establishment at Ottawa NWR, Ohio*	\$ 3,500
1989	COLONIAL WATERBIRD SURVEY OF THE GREAT LAKES IN REGION 3*	\$30,000
1989	MANAGEMENT GUIDELINES FOR MIGRATING SHOREBIRDS ON NATIONAL WILDLIFE REFUGES IN THE MIDWEST	\$ 3,000
1989	REPRINTING OF BIRD LISTS FOR MINNESOTA VALLEY, SHERBURNE, SHIAWASSEE, AND TAMARAC NATIONAL WILDLIFE REFUGES	\$ 2,500
1989	PUBLICATION OF THE PROCEEDINGS OF THE 12TH TRUMPETER SWAN SOCIETY CONFERENCE	\$ 2,500
1990	SALARY AND SUPPORT FOR PART-TIME REGIONAL NONGAME BIRD SPECIALIST	\$11,600

<u>Year</u>	<u>Project</u>	<u>Dollars</u>
1990	REPRINTING OF THE BROCHURE "BACKYARD BIRD FEEDING"	\$ 500
1990	PURCHASE OF PUBLICATIONS AND JOURNAL SUBSCRIPTIONS	\$ 500
1990	POPULATION SURVEYS, MANAGEMENT, AND INTERPRETATION AND EDUCATION PROJECTS ON REFUGE SYSTEM LANDS IN REGION 3	
	1) Bittern population and habitat surveys at Agassiz NWR, MN	\$ 3,300
	2) Northern Harrier population survey at Agassiz NWR, MN	\$ 1,700
	3) Northern Harrier population survey on the Wapello District of Mark Twain NWR, IA*	\$ 3,200
	4) Black and Forster's Tern population surveys at Minnesota Valley NWR, MN*	\$ 1,200
	5) Black Tern population and habitat surveys at Upper Mississippi River NWR, MN*	\$ 5,000
	6) Black Tern and Bittern population surveys on all Wetland Management Districts in MN*	\$ 3,000
	7) Breeding Bird Census at Sherburne NWR, MN	\$ 700
	8) Artificial heron nest trees at Horicon NWR, WI*	\$ 1,500
	9) Wading bird response to impoundment management at Mingo NWR, MO*	\$ 5,000
	10) Loggerhead Shrike population and habitat surveys at Sherburne NWR, MN	\$ 1,000
	11) Compiling and printing a bird list for the Brussels District of Mark Twain NWR, IL*	\$ 400
	12) Visitor Center landscaping for birds at Minnesota Valley NWR, MN	\$ 1,000

<u>Year</u>	<u>Project</u>	<u>Dollars</u>
	13) Songbird interpretive trail at Minnesota Valley NWR, MN	\$ 2,800
	14) Visitor Center interpretive display on wetland birds at Seney NWR, MI*	\$ 4,000
	15) Information and education tape and leaflet on marsh and wading birds at Horicon NWR, WI*	\$ 1,000
	16) Interpretation of the benefits of native grasses to nongame birds at Union Slough NWR, IA*	\$ 500
1991	SALARY AND SUPPORT FOR FULL-TIME REGIONAL NONGAME BIRD SPECIALIST	\$55,000
1991	COLONIAL WATERBIRD SURVEY OF THE GREAT LAKES IN REGION 3*	\$ 2,500
1991	POPULATION SURVEYS, MANAGEMENT, AND INTERPRETATION AND EDUCATION PROJECTS ON REFUGE SYSTEM LANDS IN REGION 3* (TO BE DETERMINED)	\$41,500

* Denotes a cooperative venture with another agency or organization.

APPENDIX D

NONGAME BIRD CENSUS AND SURVEY TECHNIQUES

A number of techniques are available for monitoring nongame bird populations. These vary in scale from intensive to extensive and yield data ranging from relative indices to absolute densities. Techniques most applicable to the Service's needs are summarized below (see also Ralph and Scott 1981, Laughlin et al. 1982, Robbins et al. 1986, Droege and Sauer 1988, Lewis and Seitz 1988, Root 1988, Engstrom 1989, Gradwohl and Greenberg 1989, Howe et al. 1989, Myers 1989, Wells 1989, Office of Information Transfer 1990, and U. S. Fish and Wildlife Service 1990a).

- 1) Breeding Bird Survey. Coordinated since 1966 by the Fish and Wildlife Service (MBMO) and Canadian Wildlife Service, this North American survey uses volunteer ornithologists to conduct annual roadside counts of birds along 2,000 permanent routes. Each route is 24.5 miles long and consists of 50 stops spaced 0.5 miles apart. All birds heard and seen during a 3-minute observation period at each stop are recorded and the sum of individual stops for each species is used as an index of species density on the route. This survey is the best single source of information on regional and continental population trends of most nongame birds; useful information is obtained on about 370 species. Rare species, many raptors, and marine, shore, and wading birds are poorly monitored by the Breeding Bird Survey.
- 2) Breeding Bird Census. Conducted annually since 1937 by hundreds of volunteers, the Breeding Bird Census program is managed by the Cornell University Laboratory of Ornithology. The censuses, which consist of detailed, repeated spot-map counts of birds in uniform plots of habitat, provide valuable information on bird densities, bird-habitat relationships, and population changes through time. Breeding Bird Censuses were published in *American Birds* and are now published in the *Journal of Field Ornithology*.
- 3) Breeding Bird Atlases. Atlases have been undertaken in 29 States to document the distribution of all breeding species by county or latitude-longitude block. Atlases provide useful information on population distribution, range expansions and contractions, important habitats, and the effects of human activities on avian distribution.
- 4) Christmas Bird Counts. Conducted annually since 1900 and sponsored by the National Audubon Society and managed by the Cornell University Laboratory of Ornithology, this survey consists of tallies of all birds encountered in over 1,500 15-mile-radius circles during one day in late December. Important information on the distribution, population dynamics, and community ecology of various bird species can be obtained from Christmas Bird Counts.

- 5) Winter Bird Population Studies. Conducted annually and managed by the Cornell University Laboratory of Ornithology, these surveys are similar in format and technique to Breeding Bird Censuses, with repeated visits to uniform plots of habitat conducted from December through February. Results are published in the Journal of Field Ornithology.
- 6) Colonial Waterbird Surveys. Colonial waterbird surveys have been conducted periodically since the 1970s in various regions of the U. S. to document the distribution and abundance of gull, tern, seabird, and wading bird colonies. In 1989, the Fish and Wildlife Service and the Canadian Wildlife Service initiated a coordinated, three-year survey of colonial waterbirds in the Great Lakes. The survey is similar to one conducted in 1977. It is hoped that important information on declining tern populations and expanding gull and cormorant populations will be obtained from this effort. Colonial waterbird surveys have also been undertaken by State agencies, although they are hampered by lack of a coordinated national monitoring program. The Cornell University Laboratory of Ornithology Colonial Bird Register was a central repository for data on abundance and reproductive success of colonies. The Register is now defunct, but still contains past survey data.
- 7) International Shorebird Survey. Coordinated by the Manomet Bird Observatory in Massachusetts, this survey is conducted by volunteers and professionals at a number of important shorebird migration stopover sites, including National Wildlife Refuges, primarily in the eastern U. S. Because 36 of the 49 species of shorebirds that occur regularly in North America breed and winter in remote sites, it is most feasible to continue monitoring their numbers at migration sites. Expansion of the survey to other areas, especially in the Midwest and West, is necessary since shorebirds are not covered adequately by other surveys.
- 8) Raptor Migration Counts. Because of their scattered breeding distribution and low population densities, raptors are difficult to survey. Monitoring raptor migration concentration points is one approach to assessing population trends. Currently, the Service provides financial support for standardized raptor migration counts at six sites in the U. S., including two in Region 3: Whitefish Point, Michigan, and Duluth, Minnesota. The Hawk Migration Association of North America and other private organizations also sponsor and coordinate raptor migration counts.
- 9) Bird Banding. The Fish and Wildlife Service's Bird Banding Laboratory serves as a centralized storage facility for bird banding data. Although not a population monitoring activity per se, analysis of bird banding data can provide valuable insights into the distribution, migration routes, survival, site fidelity, and population status of some migratory nongame birds. About 70% of the one million birds banded annually are nongame species, and about 25% of the 50,000 recoveries of banded birds are nongame.

- 10) Nest Record Card Program. The Cornell University Laboratory of Ornithology maintains this repository for data on bird nesting. Information on nest site characteristics, nesting phenology, and reproductive success can be obtained from the database.
- 11) Feeder Counts. The Cornell Laboratory of Ornithology co-sponsors Project Feederwatch, which uses volunteers to make standardized counts of birds at feeders to monitor distribution and population trends. This program is also important in educating people about the benefits of attracting bird to their yards through feeding.

APPENDIX E

ACTIONS NECESSARY TO IMPLEMENT REGION 3's NONGAME BIRD CONSERVATION PLAN

Listed below are subtasks that must be accomplished in Region 3 to implement the tasks noted on pages 6 to 14. They are not listed in priority order. Noted after each subtask are the Fish and Wildlife Service offices (Regional and national) and other agencies and organizations that are anticipated to be involved in undertaking that subtask. This list will be refined as the Regional nongame bird conservation program develops.

OBJECTIVE 1: DETERMINE THE POPULATION STATUS AND TRENDS OF NONGAME BIRD SPECIES OF CONCERN

Task 1a - Monitor nongame bird populations and assess status and trends.

- 1) Coordinate new population monitoring efforts for nongame birds on Service lands. (MB, ORB, WAMs)
- 2) Fund and undertake new population monitoring efforts for nongame birds on Service lands. (MB, WAMs, RF, U, B)
- 3) Coordinate new population monitoring efforts for nongame birds off Service lands. (MB, Feds, States)
- 4) Fund and undertake new population monitoring efforts for nongame birds off Service lands. (MB, PLC, RF, ES, FA, Feds, States, NGOs, U, B)
- 5) Compile/evaluate population monitoring data to determine status/trends of nongame bird species of concern. (MB, ORB, MBMO, Feds, States, NGOs)
- 6) Determine adequacy of current population monitoring techniques for nongame bird species of concern. (MB, ORB, MBMO, R+D, States, U)
- 7) Encourage and/or fund research to develop new population monitoring techniques for nongame birds. (MB, MBMO, R+D, States)

Task 1b - Identify nongame bird species of concern.

- 1) Compile existing information to determine nongame bird species requiring priority attention in Region 3. (MB, SE, MBMO, States, NGOs)

**OBJECTIVE 2: IDENTIFY FACTORS THAT LIMIT NONGAME BIRDS,
PARTICULARLY SPECIES OF CONCERN**

Task 2a - Conduct new research.

- 1) Determine nongame bird research priorities, particularly those related to management needs. (MB, ORB, RF, R+D, States, U)
- 2) Coordinate basic research and "management studies" on nongame birds on refuge lands. (MB, ORB, WAMs)
- 3) Fund and undertake basic research and "management studies" on nongame birds on refuge lands. (MB, ORB, WAMs, RF, States, NGOs, U, B)

Task 2b - Synthesize available information.

- 1) Identify information needs related to nongame birds. (MB, ORB, RF, ES)
- 2) Synthesize or fund the synthesis of technical information on nongame birds. (MB, ORB, R+D, Feds, States, U)
- 3) Transfer information on nongame birds to interested parties through dissemination of publications and other written materials and by providing workshops and other training opportunities. (MB, MBMO, ORB, R+D)

**OBJECTIVE 3: IMPLEMENT MANAGEMENT ACTIONS THAT ENHANCE
POPULATIONS OF NONGAME BIRDS, PARTICULARLY SPECIES
OF CONCERN**

Task 3a - Preserve essential habitat.

- 1) Assist as needed in evaluating the benefits that potential Service land acquisitions will provide to nongame birds. (MB, ORB)
- 2) Ensure protection of important nongame bird habitats and habitat components through fee title acquisition, easements, leases, agreements, and Federal project/permit review. (MB, RF, RE, PLC, ES)
- 3) When appropriate, participate in the Western Hemisphere Shorebird Reserve Network. (MB, ORB, RF, MBMO)

Task 3b - Manage habitat.

- 1) Coordinate habitat management for nongame birds on Service lands. (MB, ORB)

- 2) Fund and undertake habitat management for nongame birds on Service lands. (MB, WAMs, RF)
- 3) Coordinate habitat management for nongame birds off Service lands. (MB)
- 4) Fund and undertake habitat management for nongame birds off Service lands. (MB, PLC, RF, ES, FA, Feds, States, NGOs)
- 5) Provide technical advice on appropriate habitat management techniques to other agencies and individuals interested in managing their lands for nongame birds. (MB, PLC, RF, ES)
- 6) When reviewing development proposals, incorporate nongame bird habitat needs into comments and mitigation requirements. (MB, ES, RF, SE, Feds, States)

Task 3c - Manage populations.

- 1) Assess the impacts of predation on nongame bird species of concern and the need for predator control on Service lands. (ORB, RF, R+D, U)
- 2) Assess the need for population control of nuisance nongame birds. (MB, MBMO, States)

Task 3d - Manage people.

- 1) Where necessary, prevent human disturbance to nongame bird species of concern on Service lands through signing, law enforcement, and public education. (RF)

OBJECTIVE 4: ENHANCE THE PUBLIC'S KNOWLEDGE AND APPRECIATION OF NONGAME BIRDS

Task 4a - Provide viewing opportunities.

- 1) Participate in the Watchable Wildlife Program by identifying Service lands that offer good nongame bird viewing opportunities. (MB, WAMs, ORP, RF, States)
- 2) Where appropriate, develop hiking trails, observation decks, auto-tour routes, and other facilities on Service lands to enhance opportunities for the public to view nongame birds. (WAMs, ORP, RF, States)
- 3) Identify prime nongame bird viewing areas on private lands and make these areas available to the public through easements, leases, and agreements with

- 4) Prepare nongame bird viewing guides for selected areas in Region 3. (MB, ORP, Feds, States, NGOs, B)

Task 4b - Prepare and provide interpretive materials.

- 1) Coordinate preparation of signs, leaflets, and other interpretive materials on nongame birds. (MB, ORP, Feds, States, NGOs)
- 2) Fund, prepare, and use signs, leaflets, and other interpretive materials on nongame birds. (MB, WAMs, Feds, States, NGOs)

Task 4c - Prepare and distribute educational materials.

- 1) Coordinate preparation of leaflets, audiovisual programs, and other educational materials on nongame birds. (MB, ORP, Feds, States, NGOs)
- 2) Fund, prepare, and make available to the public leaflets, audiovisual programs, and other educational materials on nongame birds. (MB, WAMs, RF, Feds, States, NGOs)

**OBJECTIVE 5: ENHANCE COMMUNICATION AND COOPERATION WITHIN
AND OUTSIDE THE SERVICE ON NONGAME BIRD ISSUES**

Task 5a - Enhance coordination among offices within the Service.

- 1) Establish a network to facilitate information transfer and cooperation among Service offices that undertake activities affecting nongame birds in Region 3. (MB, WAMs, ORB, ORP, PLC, JVC, RF, ES, SE, FA, MBMO, other Regional MB, R + D)
- 2) Determine current status of, and future opportunities for, survey, management, research, and information/education activities that benefit nongame birds on Service lands in Region 3. (MB, ORB, WAMs, RF)

Task 5b - Enhance coordination with other agencies and organizations.

- 1) Establish a network to facilitate information transfer and cooperation between the Service and other agencies and organizations whose actions impact nongame birds. (MB, PLC, RF, ES, Feds, States, NGOs, U, B)
- 2) Coordinate cooperative survey, management, research, and information/education activities that will benefit nongame birds in Region 3. (MB, ORB, ORP, PLC, RF, ES)

- 3) Fund and undertake cooperative survey, management, research, and information/education activities that will benefit nongame birds in Region 3. (MB, WAMs, PLC, FA, RF, ES, Feds, States, NGOs, U)

KEY TO SERVICE OFFICES AND OTHER AGENCIES AND ORGANIZATIONS

B = Knowledgeable amateur birdwatchers.

ES* = Ecological Services field offices.

FA* = Regional Federal Aid office.

Feds = Federal agencies, including Bureau of Indian Affairs, Army Corps of Engineers, Department of Defense, Environmental Protection Agency, Forest Service, National Park Service, and Soil Conservation Service.

JVC* = Regional Joint Venture Coordinator.

MB* = Regional Nongame Bird Specialist and Migratory Bird Coordinator.

MBMO = Fish and Wildlife Service Office of Migratory Bird Management.

NGOs = Non-governmental conservation organizations, including bird clubs, Defenders of Wildlife, Nat. Audubon Soc., Nat. Wildlife Federation, The Nature Conservancy, Wildlife Society, zoos, ornithological societies, and Indian tribes.

ORB* = Regional Office of Refuge Biology.

ORP* = Regional Outdoor Recreation Planner.

PLC* = Regional Private Lands Coordinator.

R+D = Fish and Wildlife Service Wildlife Research Centers, Cooperative Wildlife Research Units, and Office of Information Transfer.

RE* = Regional Division of Realty.

RF* = Refuges and Wildlife field stations, including National Wildlife Refuges, Wetland Management Districts, and Wildlife Assistance offices.

SE* = Regional Endangered Species office.

States = State DNRs (especially nongame and Natural Heritage programs) and local/regional wildlife management authorities.

WAMs* = Regional Wildlife Associate Managers.

U = Universities.

* Denotes an office administered by Region 3 of the Fish and Wildlife Service.