United States Department of the Interior

FISH AND WILDLIFE SERVICE

DIVISION OF MIGRATORY BIRD MANAGEMENT

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MEMORANDUM

DATE: May 19, 2008

TO: Prospective WMGBR Program participants

FROM: WMGBR Program Coordinator

SUBJECT: Request for proposals

This is a Request for Proposals for new Webless Migratory Game Bird Research (WMGBR) projects to be initiated in 2008.

> **NOTE: In the interest of time, we will go through the review process with the assumption that $250,000 in funding will be available by next March. However, if funding does not become available, you will be notified and proposals will need to be resubmitted for 2010.**

Study proposals may be on any webless migratory game bird topic identified as a research need in from a species group Workshop, a management plan (national, regional, or state), the 1994 book entitled *Migratory Shore and Upland Game Bird Management in North America* (copies available from David Dolton), or a regional Technical Committee priority list. A list of research priorities is included for the Western, Central, and Southeastern Regions.

The primary purpose of the WMGBR Program is to promote scientifically meaningful and useful webless migratory game bird research. Our goal is to fund the highest priority and best designed studies. This does not imply that well-designed, but more descriptive studies are not welcome for species of webless game birds, where relatively little is known, to provide the foundation for improved management and further research.

Proposed projects require at least one-third of the total project cost be paid with non-federal dollars. In-kind services, such as salaries of permanent employees and vehicle expenses, are acceptable as matching funds. Investigators are <u>not</u> allowed to request WMGBR funds for salaries of existing permanent staff; however, WMGBR funds can be used for temporary labor to conduct the proposed project. Also, matching dollars must constitute an actual and real contribution to the proposed project, and not administrative cost savings. In other words, dollars saved from reduced university overhead compared to what is normally charged soft money grants (e.g., National Science Foundation grants) do not qualify as WMGBR match. Proposals should include a funding request for the entire study, not just one year, because all funds for successful proposals will be dedicated from the WMGBR FY09 allocation. Research

proposals may be in any standard proposal format and should include: (1) the name, address, telephone, and FAX number of the principal investigator; (2) a budget page listing costs for each fiscal year with the percent and dollars of the WMGBR request, and the percent and dollars of the non-federal match, for each year *and the **entire** project*; (3) an expected final report date; and (4) a cover letter of support from the appropriate state wildlife agency. **Proposals (as a Microsoft Word document *with support letters included*) should be submitted to me via e-mail.**

NOTE: For proposals submitted in the **Western Region** (Pacific Flyway), a letter of support must come from the respective Study Committee member in your state: AK– Tom Rothe; AZ– Mike Rabe; CA– Dan Yparraguirre; CO– Jon Runge, ID– Tom Hemker; MT– Rick Northrup; NV– Craig Mortimore; NM– Tim Mitchusson; OR– Brad Bales; UT– Tom Aldrich; WA– Don Kraege; WY– Joe Bohne.

Proposals will be evaluated and ranked by a "Review Process" and "Evaluation Criteria" (see attached). These criteria will be used as a meaningful place for the Regional Technical Committees to begin evaluating project proposals, but will not be the sole source of information for ranking the projects. Generally, the top-ranked projects from each region are considered for funding.

Basic criteria for researchers to consider when preparing proposals include: (1) clear objectives that include the timing and scope of the project, (2) a discussion of the need or justification for the work, including a thorough review of the literature demonstrating why the study is important, (3) a detailed approach outlining how the data will be collected and analyzed, and (4) a schedule of activities and a budget by year, showing the amount requested in WMGBR funds and the WMGBR percentage of the total funding. Basically, if the research is important enough to be considered for national funding, the principal investigator should ensure that the proposal reflects the importance of the research.

Regional WMGBR Technical Committees will be chaired by Brad Bales, OR (Western), Jeff Lusk, NE (Central), Ed Robinson, NH (Northeast), and Billy Dukes, SC (Southeast). John Schulz is chairman of the WMGBR Review Committee that will make the final decision on projects to fund based on the evaluations made by the Regional Technical Committees.

Proposals are due in my office no later than November 1, 2008. **Note**: they should not be submitted without the required letter(s) of support from the state(s).

Please contact me if you have any questions. My address and telephone numbers are listed above; e-mail: David_Dolton@fws.gov

David D. Dolton

Attachments

Webless Migratory Game Bird Research Proposal
Review Process

		Completion Deadline
1.	Proposal submitted by state wildlife agency (or by researcher with cover letter of approval from state agency).	November 1
2.	Proposals processed by USFWS-DMBM Program Coordinator and submitted for evaluation to respective WMGBR Regional Technical Committees: Western, Central, Northeastern, and Southeastern.	December 1
3.	Proposals evaluated and ranked by Regional Technical Committees.	February
4.	Review of Technical Committee Evaluations by WMGBR Review Committee (Regional Technical Committee Chairmen & USFWS Program Coordinator Officer) and recommendations made for project selection.	Mid-March
5.	Preparation of draft Grant Agreements or Intra-Agency Agreements by WMGBR Program Coordinator.	April
7.	Approved contract to researcher(s).	May or June
8.	PROJECT STARTS	As scheduled

Evaluation Criteria for Webless Migratory Game Bird Research Proposals
(Revised July 20, 1998)

Possible points	Criteria
10	**I. Existing information data base related to the problem in question for this species/population**
	10 pts. Little known
	5 pts. Moderately known
	2 pts. Extensive
20	**II. Information needs**
	20 pts. Addresses an immediate need identified in a management plan (national, regional, or state), the 1994 book *Migratory Shore and Upland Game Bird Management in North America*, or a regional technical committee priority list.
	10 pts. Addresses a future need identified in a management plan (national, regional, or state), the 1994 book *Migratory Shore and Upland Game Bird Management in North America*, or a regional technical committee priority list.
	2 pts. Addresses a need identified only in the proposal.
30	**III. Status of the species/population**
	A. Population
	15 pts. Decreasing
	13 pts. Unknown
	7 pts. Stable
	2 pts. Increasing
	B. Habitat
	15 pts. Decreasing
	13 pts. Unknown
	7 pts. Stable
	2 pts. Increasing
20	**IV. Management applicability**
	A. Range
	15 pts. Results applicable throughout
	10 pts. Results applicable to > 50% of range
	5 pts. Results applicable to < 50% of range
	B. Applicability
	5 pts. Multi-species (Biodiversity approach)
	3 pts. Single species
30	**V.Scientific merit**
	30 pts. Objectives are clearly stated, procedures are well designed, results are attainable, quantifiable estimates will be statistically reliable and comparable to other studies, manpower and budget are adequate.
	15 pts. Objectives are clearly stated, most procedures are well designed, important results are attainable, quantifiable estimates will be statistically reliable and comparable to other studies, manpower and budget are generally adequate.
	0 pts. Objectives fuzzy, poor design or results not attainable, results will not be statistically reliable or will be difficult to compare, budget and manpower are inadequate (zero value automatically kills the proposal).
10	**VI. Funding**
	10 pts. > 75% of funding from other sources
	7 pts. 50-75% of funding from other sources
	5 pts. 33-49% of funding from other sources
	0 pts. <33% of funding from other sources (zero value automatically kills the proposal).
120	**TOTAL**

Technical Committees for Evaluating and Prioritizing Webless Migratory Game Bird Research Proposals

Western

Alaska
Arizona
California
Hawaii
Idaho
Nevada
Oregon
Utah
Washington

Central

Arkansas
Colorado
Iowa
Kansas
Minnesota
Missouri
Montana
Nebraska
New Mexico
North Dakota
Oklahoma
South Dakota
Texas
Wyoming

Northeastern

Connecticut
Delaware
Illinois
Indiana
Maine
Massachusetts
Michigan
New Hampshire
New Jersey
New York
Ohio
Pennsylvania
Rhode Island
Vermont
Wisconsin

Southeastern

Alabama
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
South Carolina
Tennessee
Virginia
West Virginia

Pacific Flyway Webless Migratory Game Bird Research Needs

The Pacific Flyway Study Committee has identified the following research needs as being the highest priority for webless migratory game bird management in the Pacific Flyway. This list is intended to encourage the development and submission of study proposals that address these needs. It does not, however, exclude from consideration any webless migratory game bird topic identified as a research need in a national, regional, or state management plan; the 1994 book titled "Migratory Shore and Upland Game Bird Management in North America" (Tacha and Braun 1994); or a regional technical committee priority list. Interested parties are encouraged to consult with Study Committee members, and may be directed by visiting the member contact page of the Pacific Flyway Council Website at PacificFlyway.gov.

Priority Research Needs

- Develop methodology to reliably and cost effectively estimate abundance (absolute abundance is preferred over relative abundance) of Interior band-tailed pigeons throughout their range.
- Define the breeding distribution, migration patterns, and seasonal habitats of Pacific Coast and Interior band-tailed pigeons.
- Develop methodology to accurately estimate recruitment, harvest, and survival rates of mourning doves in the Western Management Unit.
- Determine demographics, distribution (including subspecies composition of sandhill crane assemblages), population status, and seasonal habitats used by sandhill cranes.
- Develop methodology to reliably and cost effectively estimate annual harvest of band-tailed pigeons, white-winged doves, and common snipe.

Central Flyway Webless Migratory Game Bird Research Issues, Questions, and Information Needs

Mourning Dove

1.Studies aimed at improving mourning dove population demography (population trend indices, survival rate, recruitment rate, harvest rate) in the Central Management Unit (CMU).

2.Studies related to effects of harvest (e.g., bag limits, season length, harvest rate) and natural mortality factors on local and regional mourning dove populations in the CMU.

3.Local and/or regional studies determining the temporal and spatial limits of various mourning dove subpopulations within the CMU and vulnerability to harvest (e.g., different migratory groups wintering and breeding in various locations along with non-migratory populations).

4.Multiple studies in a wide range of habitats (both breeding and wintering) determining and evaluating the relationships among CMU mourning dove populations and habitat at both micro and macro levels.

White-winged Dove

1.Studies aimed at improving population demography (population trend indices, survival rate, recruitment rate, harvest rate). Examples include information on Eastern and Western Populations and coordination of breeding surveys with Mexico and Central America, obtaining reliable and meaningful harvest estimates from Mexico and Central America, improving taxonomic definitions and habitat relationships of subpopulations.

2.Determine relationships among harvest (bag limits, aggregate dove/pigeon bags, season length, season dates, shooting hours, etc.) and population demographics (trends, survival, recruitment).

3.Determine relationships among traditional native habitats and newly colonized urban habitats with population demographics; e.g., impact of agricultural chemicals, importance of seasonal native food sources, effectiveness of native habitat restoration to benefit populations.

White-tipped Dove:

1.Improved life history information to build a strong foundation of reliable biological knowledge for improving habitat and population management decisions.

2.Studies aimed at improving white-tipped dove population demography (population trend indices, survival rate, recruitment rate, harvest rate).

Band-tailed Pigeon:

1.Test techniques with the greatest likelihood of success in an effort to cost effectively and reliably monitor local and range-wide population size.

2.Determine present population range, and evaluate relative to the historic range.

3.Investigate the relationship of food and nest site availability to band-tailed pigeon distribution, density, and productivity; and determine the effects of land-use practices (e.g., forestry management practices) on nest densities, nest success, and recruitment.

4.Determine impacts of non-hunting mortality factors including disease, predation, and pesticides on demographics.

5.Describe seasonal habitats essential for maintaining pigeon populations.

6.Evaluate the effect of early-season harvest (before 20 September) on recruitment and survival.

7.Estimate survival rates through a long-term (at least 5 years) banding program, and determine at what harvest levels subpopulations are negatively affected.

Mid-Continent Sandhill Crane:

1.Determine the numbers of cranes in each subpopulation and the migrational distribution of subpopulations.

2.Determine the racial composition of the 2 subpopulations of sandhill cranes.

3.Estimate annual recruitment (spatial and temporal).

4.Inventory the status and trends of wintering and migration habitats of sandhill cranes. Prioritize habitat and conservation issues (wintering versus migration habitat).

5.Estimate crippling rates of sandhill cranes.

6.Experimentally examine the effects of bag limits, season length, season dates, and regulations in general on sandhill crane harvest levels.

7.Evaluate the validity of crop depredation concerns.

8.Determine subsistence harvest in Canada, Alaska, and Russia and sport harvest in Mexico and Russia.

Rocky Mountain Sandhill Crane

1.Refine adult and juvenile survival estimates.

2.Assess the quality of resources needed by the Rocky Mountain population of cranes in the San Luis Valley.

3.Develop and test techniques that will reduce or eliminate crop damage by cranes.

American Woodcock

1.Determine if declines in woodcock in the Central Region are due to succession or other habitat changes on survey routes or if habitat changes on survey routes are representative of those throughout the woodcock's range.

2.Determine the effect of harvest management on woodcock in the Central Region and locally within the Central Region.

3.Estimate harvest rates, crippling rates, and band reporting rates of woodcock in the Central Region.

4.Determine the effects of contaminants on woodcock in the Central Region.

5.Identify habitats used by woodcock in the Central Region during winter and develop management strategies for these habitats.

6.Develop methods to stimulate habitat creation and management for woodcock on private lands in the Central Region.

Wilson's Snipe

1.Studies aimed at improving common snipe population demography (population trend indices, survival rate, recruitment rate, harvest rate) for improving population management. Examples include development of breeding and wintering ground population surveys, surveys of reproductive success, estimating proportions of snipe wintering in Latin America, and estimates of sex and age ratios of harvested birds.

2.Survey habitats on the wintering grounds to determine trends in habitat loss and condition.

American Coot

1.Studies aimed at improving American coot population demography (population trend indices, survival rate, recruitment rate, harvest rate) for improving population management. Examples include evaluating bias and precision of Breeding Ground Survey and Breeding Bird Survey, conducting an updated analysis of band recovery data, evaluating potential sources of bias in harvest surveys, and identifying sources of variation in recruitment.

2.Improved life history information to build a strong foundation of reliable biological knowledge for improving habitat and population management decisions. Examples include improving knowledge of diet throughout the annual cycle and determining habitat requirements during postbreeding, migration, and wintering periods.

3.Determine the effects of diseases on coot populations.

Common Moorhen

1.Studies aimed at improving common moorhen population demography (population trend indices, survival rate, recruitment rate, harvest rate) for improving population management. In the Central Flyway, population trends should be estimated at least in coastal freshwater marshes of the Gulf Coast and selected wetlands along the Gila, Rio Grande, and Pecos rivers in New Mexico.

2.Determine the ranges of eastern and western populations and examine their integrity.

Purple Gallinule

1.Studies aimed at improving purple gallinule population demography (population trend indices, survival rate, recruitment rate, harvest rate) for improving population management.

2.Improved life history information to build a strong foundation of reliable biological knowledge for improving habitat and population management decisions. Examples include banding studies to determine nesting area fidelity, migration patterns, and survival and habitat studies to determine available habitat, habitat use and preferences, and management potential.

Clapper Rail

1.Studies aimed at improving population demography (population trend indices, survival rate, recruitment rate, harvest rate) of the Lousiana subspecies of the clapper rail (*Rallus longirostris saturatus*) for improving population management.

2.Improved life history information to build a strong foundation of reliable biological knowledge for improving habitat and population management decisions. Examples include identifying habitat use and potential of specific habitat management techniques, banding to clarify dispersal patterns of non-migratory subspecies and wintering patterns of migratory races, and developing techniques for identifying sex and age from external characteristics.

King Rail

1.Studies aimed at improving king rail population demography (population trend indices, survival rate, recruitment rate, harvest rate) for improving population management.

2.Improved life history information to build a strong foundation of reliable biological knowledge for improving habitat and population management decisions. Examples include describing habitat use and determining the potential of specific habitat management techniques.

Virginia Rail

1.Studies aimed at improving Virginia rail population demography (population trend indices, survival rate, recruitment rate, harvest rate) for improving population management.

2.Improved life history information to build a strong foundation of reliable biological knowledge for improving habitat and population management decisions. Examples include determining the effectiveness of specific habitat management techniques on Virginia rails and developing techniques for identifying sex from external characteristics.

Sora

1.Studies aimed at improving sora population demography (population trend indices, survival rate, recruitment rate, harvest rate) for improving population management.

2.Improved life history information to build a strong foundation of reliable biological knowledge for improving habitat and population management decisions. Examples include describing habitat use, distribution, and effective habitat management techniques during winter and describing migration chronology and habitat use of unstudied populations outside the Midwestern U.S.

Eastern Management Unit Dove Technical Committee
Mourning Dove Research Priorities

Mortality, Survival and Harvest Rates

1. Develop annual estimates of survival rate, harvest rate and harvest distribution for each management unit.
2. Determine the impacts of natural mortality factors (i.e. predation and disease) and how they fluctuate through time.

Recruitment Rates

1. Develop an annual recruitment/productivity estimate for mourning doves in the Eastern Management Unit.
    a) Examine the feasibility of using wing collections from hunter-killed birds as an index of recruitment.
    b) Determine the percentage of juveniles and adults having undergone complete primary feather molt prior to September 1 in order to refine age ratios in harvest samples.
    c) Examine age ratio bias in preseason trapped samples, compare age ratios in preseason samples to harvest samples, and determine utility of using preseason age ratios as an index of productivity or recruitment.
    d) Estimate sample size of wings required to provide an accurate index of recruitment at regional and state scales.
    e) Determine the most efficient and effective means (batch samples vs. mail survey) of wing collection to provide samples needed for deriving an index of recruitment
2. Examine factors affecting productivity and recruitment and magnitude of annual fluctuations due to these factors.
3. Determine the impact of Eurasian collared doves on mourning dove habitat use, survival, productivity and related factors.

Population Abundance

1. Develop reliable estimates of annual population abundance at Management Unit and state scales.
    a) Obtain regional and seasonal population demographic data for direct input into population models currently being developed.
    b) Develop simplistic population modeling software for modeling mourning dove populations at the regional and state scales.
    c) Refine current breeding season survey techniques or develop alternative methods that yield estimates with a known relationship to population abundance.
    d) Determine the proportion of the EMU mourning dove population that is suburban or urban in distribution, monitoring techniques for this subpopulation, and what role this subpopulation has in providing harvest opportunity and buffering population declines.
    e) Determine methods for estimating the spatial limits of various mourning dove populations or subpopulations (e.g. how much area does a local breeding population use during a nesting season).

Impacts of Harvest on Dove Populations

1. Improve harvest estimates provided by HIP data.
2. Accurately estimate crippling loss and unretrieved kill and their contributions to overall hunting mortality.
3. Determine relationship of hunting regulations (i.e. bag limits) to harvest rates and recruitment.
4. Determine impact of intensively-managed shooting fields on dove populations at various spatial scales.
5. Evaluate the spatial limits of potential population sink habitats (i.e. managed shooting fields) in relation to potential source habitats.

Impacts of Lead Shot

1. Determine relationships among lead shot deposition rates, exposure and ingestion rates, soil types, substrate color/texture and cultural methods employed in field preparation under actual field conditions.
2. Quantify ingestion rates and impacts on survival from feeding trials that closely mimic exposure rates, food quality, food distribution, and other factors found under actual field conditions.
3. Determine cause-specific mortality rates for doves in areas with a history of and ongoing lead shot use versus "clean" areas (e.g. study sites with history of non-toxic shot use).
4. Develop monitoring and evaluation programs to determine if further nontoxic shot restrictions can bring about measurable responses in local or regional mourning dove populations (changes in survival rates, reproductive rates, or blood/tissue Pb levels).
5. Investigate ballistics and lethality of appropriate non-toxic shot sizes for hunting mourning doves.

Dove Hunter Demographics and Opinions

1. Survey dove hunters at national, regional, and/or state scales to (1) determine hunter attitudes and opinions regarding nontoxic shot requirements for mourning dove hunting and, (2) explicitly capture the rationale for respondents' views on restrictions on the use of lead shot for mourning dove hunting.
2. Survey dove hunters at national, regional, and/or state scales to (1) determine factors affecting dove hunter satisfaction, recruitment and retention, (2) determine dove hunters' preferences for various regulatory options including season length, bag limit, and shooting hours, and (3) determine how potential changes to season length, bag limits, shooting hours, and non-toxic shot requirements would affect hunter recruitment and retention.

Revised 06/19/2006

Atlantic Flyway Webless Migratory Game Bird Research Needs

H = high priority, M = medium priority

Woodcock

1. Evaluate if Singing Ground Survey routes are adequately sampling all available woodcock habitats. (H)
2. Evaluate the effects of hunting mortality. (H)
3. Monitor population responses to habitat management. (H)
4. Define derivation of the harvest and if possible, identify population management units. (M)
5. Investigate effects of environmental contaminants and diseases. (H)

American Coot

1. Studies to improve knowledge of American Coot population demography (population trend indices, survival rate, recruitment rate, harvest rate, migration patterns, and harvest derivation). (H)

Rails

1. Studies to improve knowledge of rail population demography (population trend indices, survival rate, recruitment rate, harvest rate). (H)

Mourning Doves

1. Investigate relationships among hunting mortality, annual survival, and annual reproductions. (H)
2. Evaluate if call count and breeding bird surveys are adequately sampling all available mourning dove habitat, particularly in urban areas. (H)

Common Snipe

1. Studies to improve knowledge of common snipe population demography (population trend indices, survival rate, recruitment rate, harvest rate). (H)

WEBLESS SPECIES IN GENERAL

1. Develop survey techniques to monitor population status. (H)
2. Conduct research on population limiting factors. (H)
3. Relationships among winter habitat conditions, population biology, and harvest. (H)
4. Standardized landscape/ecosystem approaches to habitat characterization and management using GIS and other technologies. (H)
5. Ecological, physiological, and behavioral impacts of environmental contaminants on webless migratory game bird populations. (H)
6. Human dimensions of hunting, watching, conservation, and economics. (M)

Migratory Shore and Upland Game Bird Committee – AFTS 2006