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Summary of Priority Research and Management Needs for Migratory Shore and Upland Game Birds

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Summary of Priority Research and Management Needs for Migratory Shore and Upland Game Birds

Developed by the Association of Fish and Wildlife Agencies’ Migratory Shore and Upland Game Bird Support Task Force

Compiled and Edited by
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May 3, 2011

Cover photo credits:
Top row: white-winged dove by Bruce Taubert, sandhill cranes by Nazhiyath Vijayan, band-tailed pigeon by Hi Mountain Lookout;
Second row: clapper rail by Matt Tillet, purple gallinule by lakeandlocal;
Third row: American woodcock by CC Chapman, common moorhen by Brett Donald
Introduction

In 2006, the Migratory Shore and Upland Game Bird Working Group (Working Group) established a Migratory Shore and Upland Game Bird Support Task Force (Task Force). The Task Force is composed of nine representatives of state, federal, and non-governmental organizations. The Task Force was directed to update the research and management needs of the 16 species of migratory shore and upland game birds (Table 1) and to develop a strategy for funding priority research and management needs for these species. The Strategies include those priorities that will significantly improve the management of Migratory Shore and Upland Game Birds and thus, represent a significant winnowing of potential research and management needs from more than three thousand, identified in earlier planning efforts, to 26. In a time of increased budget scrutiny and justification, these Strategies represent a significant accomplishment by focusing our efforts on the most important actions.

**STRATEGY PURPOSE**

The six Strategies each contain recommendations for obtaining priority information needed to improve habitat and harvest management decisions for the 16 species of migratory shore and upland game birds. The Strategies focus on evaluating and improving monitoring efforts, measuring vital rates (survival, reproduction, and recruitment) and evaluating habitat needs during the annual life cycle of these birds. The Strategies are intended to provide guidance for research and management activities, and to increase financial support for the program during the next 5–10 years.

**STRATEGY DEVELOPMENT PROCESS**

The Task Force determined that convening groups of species experts would be the most efficient and effective process for developing the strategies. Experts from universities, and from state and federal agencies in the United States (U.S.) and Canada participated in the process. More than 90 experts collaborated on one or more of the Strategies (Appendix A). Many of these experts are intimately involved with the North American Flyway system of managing migratory game birds. Strategy development included a combination of

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### Table 1. The 16 species of migratory shore and upland game birds for which priority information needs were identified.

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>King Rail</td>
<td>Rallus elegans</td>
</tr>
<tr>
<td>Clapper Rail</td>
<td>Rallus longirostris</td>
</tr>
<tr>
<td>Virginia Rail</td>
<td>Rallus limicola</td>
</tr>
<tr>
<td>Sora</td>
<td>Porzana carolina</td>
</tr>
<tr>
<td>Purple Gallinule</td>
<td>Porphyrio martinica</td>
</tr>
<tr>
<td>Common Moorhen</td>
<td>Gallinula chloropus</td>
</tr>
<tr>
<td>American Coot</td>
<td>Fulica americana</td>
</tr>
<tr>
<td>Sandhill Crane</td>
<td>Grus canadensis</td>
</tr>
<tr>
<td>Wilson’s Snipe</td>
<td>Gallinago delicata</td>
</tr>
<tr>
<td>American Woodcock</td>
<td>Gallinago delicata</td>
</tr>
<tr>
<td>Band-tailed Pigeon</td>
<td>Patagioenas fasciata</td>
</tr>
<tr>
<td>Scaly-naped Pigeon</td>
<td>Patagioenas squamosa</td>
</tr>
<tr>
<td>Zenaida Dove</td>
<td>Zenaida aurita</td>
</tr>
<tr>
<td>Mourning Dove</td>
<td>Zenaida macroura</td>
</tr>
<tr>
<td>White-winged Dove</td>
<td>Zenaida asiatica</td>
</tr>
<tr>
<td>White-tipped Dove</td>
<td>Leptotila verreauxi</td>
</tr>
</tbody>
</table>

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in-person and online meetings, followed by additional work via email, online meetings, and conference calls. The first Strategy was completed in June 2008 and the final Strategy was completed in February 2011.

Priority Information Needs determined for each of the 16 species are listed below. Full versions of the Priority Information Needs Funding Strategies are available on-line at U.S. Fish and Wildlife Service Migratory Bird Program website. The reports can be found by selecting the “Webless Migratory Game Birds” link under the “Research” heading (http://www.fws.gov/migratorybirds/NewsPublicationsReports.html). Hard copies of each Strategy can also be obtained by contacting the U.S. Fish and Wildlife Service — Division of Migratory Bird Management.

**Priority Information Needs for Mourning Doves and White-winged Doves**

- A National Banding Program for doves
- A National Dove Parts Collection Survey
- Independent measures of abundance and/or trends for doves
- A database of predictors of dove vital rates

**Priority Information Needs for Rails and Snipe**

- Implement a national monitoring program
- Continue to improve the Harvest Information Program sampling frame
- Improve the Rails and Snipe Parts Collection Survey
- Estimate vital rates to support population modeling

**Priority Information Needs for Sandhill Cranes**

- Improving sandhill crane harvest-management decision structures
- Improving the Eastern Population Sandhill Crane Survey
- Information needs for sandhill crane populations in the West
- Assessing effects of habitat changes on the Rocky Mountain population of sandhill cranes
- Improving population abundance estimates for the Mid-Continent population of sandhill cranes
Priority Information Needs for American Woodcock

- Develop a demographic-based model for assessing American woodcock population response to harvest and habitat management
- Develop communication strategies to increase support for policies and practices that benefit American woodcock and other wildlife of young forests
- Improve understanding of migration, breeding, and wintering habitat quality for American woodcock
- Improve the Singing-ground Survey

Priority Information Needs for American Coots, Purple Gallinules, and Common Moorhens

- Implement a National Marshbird Monitoring Program
- Update the National Wetland Inventory
- Continue to improve the Harvest Information Program sampling frame
- Determine breeding origin of American coots and common moorhens that are harvested at high-harvest locations

Priority Information Needs for Band-tailed Pigeons, Zenaida Doves, White-tipped Doves and Scaly-naped Pigeons

- Reliable demographics of band-tailed pigeons
- Association of food availability with abundance and distribution of band-tailed pigeons
- Status assessment of white-tipped doves in south Texas to determine distribution, population abundance, and biology
- Population and harvest data collected annually for Zenaida doves and scaly-naped pigeons
- Adaptive harvest strategy for Zenaida doves and scaly-naped pigeons

Use of the Priority Information Needs Strategies

The priorities identified in the Strategies will guide project selection through the U.S. Fish and Wildlife Service’s Webless Migratory Game Bird Program. The Webless Migratory Game Bird Program was designed to provide cooperative funding for both research and management activities that benefit the 16 species of webless migratory game birds in North America. (Webless migratory game birds and migratory shore and upland game birds are interchangeable terms as they refer to the same 16 species of birds listed in Table 1.) The Webless Migratory Game Bird Program has proved to...
be extremely effective in providing much-needed funding for webless game species. Since 1994, cooperators have completed a total of 84 research and management related projects supported by $3.8 million in Webless Migratory Game Bird Program funds. The Webless Migratory Game Bird Program funds have generated matching contributions of nearly $8.0 million from cooperators for a total $11.8 million being expended on research aimed at improving habitat and harvest management of webless species. Annual abstract reports containing updates and results of projects completed through the program can be found by selecting the “Webless Migratory Game Birds” link under the “Research” heading (http://www.fws.gov/migratorybirds/NewsPublicationsReports.html).

Each year, the U.S. Fish and Wildlife Service releases a request for proposals for the Webless Migratory Game Bird Program. Submitted proposals are reviewed by four regional review committees (Fig. 1) that follow the boundaries of the North American Flyways (Fig. 2). The Flyway-based committees are composed of individuals from state and federal agencies with knowledge of the research and management needs for these species. The chairperson of each Flyway-based review committee serves on a National Review Committee, which makes final project selections based on input from each Flyway-based committee. The National Review Committee is composed of the Flyway-based Chairs, U.S. Fish and Wildlife Service staff, and representatives from the Migratory Shore and Upland Game Bird Support Task Force. The National Review Committee selects proposals based on how well they address the priority information needs that have been identified for the 16 species of webless migratory game birds.

In addition to guiding project selection within the Webless Migratory Game Bird Program, the Strategies are being used to illustrate and document the critical thinking and resulting priorities for improving the management of Migratory Shore and Upland Game Bird species to state partners, the Department of the Interior, the Office of Management and Budget, and Congress. The Strategies include those priorities that will significantly improve the management of Migratory Shore and Upland Game Birds and thus, represent a significant winnowing of potential research and management needs from more than three thousand, identified in earlier planning efforts, to 26. In a time of increased budget scrutiny and justification, these Strategies represent a significant accomplishment by focusing our efforts on the most important actions.

Figure 1. Diagram of review process for the Webless Migratory Game Bird Program.

Figure 2. Map of North American flyway boundaries in the United States. Proposals working with the 16 species identified in Table 1 will be accepted from throughout North America.
Appendix A. List of Participants in Six Strategies

MWD = Mourning and White-winged Doves Strategy
RS = Rails and Snipe Strategy
SC = Sandhill Cranes Strategy
AW = American Woodcock Strategy
CGM = American Coots, Purple Gallinules and Common Moorhens Strategy
PD = Band-tailed Pigeons, Zenaida Doves, White-tipped Doves and Scaly-naped Pigeons Strategy

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mourning dove by Bruce Taubert

scaly-naped pigeon by Ross Tsai