

Report to the U.S. NABCI Committee: A summary of comments to the IAFWA report on coordinated bird monitoring

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Background

The U.S. North American Bird Conservation Initiative (NABCI) Committee requested comments on the report entitled *Monitoring Avian Conservation: Rationale, Design, and Coordination* from over 50 conservation organizations, agencies, and initiatives. These conservation partners further distributed the report through their own networks. The objective of the review was to capture comments that would help develop initial recommendations on advancing coordinating bird monitoring. The report itself will not be revised, it has served its intended purpose as a springboard for further discussion rather than final recommendations.

The report was generated by a working group of the Science and Research Committee of the IAFWA at the request of the U.S. Fish and Wildlife Service (USFWS) and the U.S. Geological Survey (USGS). The working group consisted of three State, three USFWS, and three USGS representatives who met twice face-to-face and had numerous conference calls and email discussions from March to September 2004. The working group was charged with (1) identifying key technical issues, approaches, and suggestions about the coordination of bird monitoring, as a basis for comprehensive discussions in the bird conservation and research community; (2) suggesting a process for integrating and updating ideas from the avian conservation and research community; and (3) producing a report for the IAFWA Science and Research Committee with recommendations on technical aspects of coordinated bird monitoring.

Monitoring Avian Conservation: Rationale, Design, and Coordination was presented at the IAFWA's 2004 meeting in Atlantic City, New Jersey. The IAFWA Bird Conservation Committee endorsed the recommendations and final report. The IAFWA requested that the U.S. NABCI Committee take a

leadership role in advancing coordinated bird monitoring using the report as an initial step towards discussion and comment.

The U.S. NABCI Committee asked that comments be focused on the following questions.

1. Do you agree with the general content of the report?
2. Do you agree with the specific recommendations in the report?
3. In implementing the recommendations of the working group report, what do you see as key initial steps?
4. Cite what you believe to be the most pressing management issues that require evaluation through bird monitoring activities.

NABCI solicited comments from partners by December 1, 2004. Those partners included the U.S. NABCI Committee, coordinators and science support teams for each bird conservation initiative, State Fish and Wildlife Agencies, members of the NABCI Federal Agency Subcommittee, members of the NABCI NGO Subcommittee, Canadian Wildlife Service, and CONABIO. Partners were encouraged to request comment within different sections of their organization and to request comments from other interested partners.

Due to a desire within the bird conservation community to move forward quickly, the approaching holidays, and the length of the report, the comment period was necessarily brief. However, a wide breadth of opinions and recommendations were captured in the over 400 comments received and will continue to be captured as discussions and next steps take place. Forty-nine sets of comments were received from a wide variety of organizations including U.S. Federal Agencies (3), State Fish and Wildlife Agencies (21), Universities (2), Non Governmental Organizations (5), Joint Ventures (3), Bird Conservation Initiatives (5), and international partners (1).

The U.S. NABCI Committee designated a small ad hoc group to consolidate and summarize the comments based on answers received to the four questions and a miscellaneous section to capture comments unrelated to the four questions. The ad hoc group has also submitted a recommendation to the U.S. NABCI Committee at the end of this report. A substantial number and considerable detail were provided by reviewers which were captured in text and spreadsheet form (contact Debbie Hahn,

IAFWA for these complete summaries). Following is a summary of the primary themes evident in the reviewers' comments. The intent for this review is to provide an accurate summary of comments to the U.S. NABCI Committee so the Committee can provide structure and guidance to their Monitoring Working Group to advance bird monitoring as a key component of science-based management.

Question #1: Do you agree with the general content of the report?

The vast majority of agencies and organizations that provided comments to this report agreed, or agreed in part, with the general content of the report. Of 49 respondents, 24 seemed to fully agree with the general content, 22 agreed but with qualifications, and 3 disagreed with the content. There was no clear pattern when comparing reviewer comments with agency mandate. For example, agencies in the broad category of "land management agencies" were evenly split between agreed and agreed with qualifications.

Those who agreed, but with qualifications, were primarily concerned that the report underrepresented surveillance monitoring and placed too high an emphasis on management-based monitoring. All of the nongame bird conservation initiatives were in this category. Many of these reviewers noted that the report and the ensuing discussions are creating a false dichotomy between surveillance monitoring and management oriented monitoring. There is a recognition that information gleaned from different approaches to monitoring are not independent from one another and implementation of different monitoring approaches should be complimentary.

Many reviewers complimented the IAFWA and the U.S. NABCI Committee for leadership in moving monitoring forward. However, there were concerns about the process up to this point, and those reviewers emphasized that the continued process should have a broader participation and a clear mission.

Question # 2: Do you agree with the specific recommendations in the report?

Twenty-three comments included specific responses to Question 2. Generally, there was support for the focus on monitoring as a key part of bird management. Slightly over half (12) fully agreed with the recommendations, while the remainder agreed with the recommendations but made other comments as well.

The other comments involved the disproportionate emphasis on management-based monitoring and the distinction drawn between management-based and surveillance monitoring. Surveillance versus management-based monitoring discussions were incorporated into 18 of 23 comments. Respondents who commented on the distinction between surveillance and management-based monitoring were more often critical (12 respondents) than supportive (6 respondents).

Many reviewers felt that the report did not clearly articulate the distinction between surveillance and management-based monitoring, which resulted in confusion and concern about possible next steps based on this report. Several reviewers noted that the two types were treated as separate categories rather than a gradient of monitoring possibilities; the defense of surveillance monitoring programs often became a greater focus for comments than the need for a comprehensive review. Alternative definitions of monitoring were suggested by a number of reviewers. The need for alternative nomenclature referenced in the comments indicates a lack of clarity and definition in some elements of the IAFWA report. However, it is unclear if the disconnect is simply with the language of the debate or a more fundamental philosophical disconnect among segments of the bird conservation community.

Because of this unclear distinction, two members of this ad hoc review team (Ken Williams, Jon Bart) provided independent summaries of reviewer comments related to surveillance and management-oriented monitoring, those reports are provided under separate cover and will be available to the Monitoring Working Group and others when the U.S. NABCI Committee deems appropriate.

Among the other comments, 3 noted that the specific recommendations were not very specific and that much more work would be needed to develop operational guidelines, and 2 reviewers noted that groups other than agencies or the IAFWA Bird Conservation Committee needed to be involved in future discussions.

Question #3: In implementing the recommendations of the working group report, what do you see as key initial steps?

Suggestions for review of existing programs and suggestions for developing standards for future monitoring were among the most common comments on question #3. Reviewers did not differentiate between monitoring targeted toward on-the-ground management issues and monitoring for broad scale management issues.

The most commonly-suggested action as an initial step was to review existing monitoring programs. Some respondents saw this as the responsibility of each agency, although many envisioned a more comprehensive, centralized review that would require a major effort with dedicated (funded) personnel. Broader representation in a reconstituted NABCI monitoring working group was recommended; some saw state agencies taking the lead role, others envisioned leadership by federal agencies. Suggested elements include:

- A team to review large-scale surveys, (e.g., BBS, BBA, BBC, CBC, MAPS), evaluating and prioritizing existing programs.
- Emphasize improving and adapting existing large-scale and long-term efforts. Identify general management issues that long-term programs are well-suited to address.
- Consider whether all species are receiving adequate coverage. Link large scale population surveys (e.g., BBS, BBA, BBC, CBC, MAPS) with large scale surveys of landscape conditions.
- Identify programs for consolidation, modification, or termination.
- Develop a comprehensive list of current surveys and databases, including purpose, management objective, methods, precision, data availability, needs for regulatory purposes, inclusive species, geographic and temporal scale, responsible entity, key contact, funding sources, costs.

A second set of comments addressed what monitoring should look like in the future. Survey design, inter-agency technical standards, methods, and data availability as well as population, demographic, habitat, non-avian species, and other types of monitoring would be considered.

Suggested approaches included:

- Identify monitoring needs and relevant monitoring scales, and evaluate whether existing monitoring programs met these needs at the appropriate scales.
- Establish a blueprint for a comprehensive, continental monitoring plan for bird populations. This will require funding, active participation by monitoring working groups, and agency commitment. Suggested elements included a top-down rather than decentralized model, a set of “principles and standards” for science-based monitoring, and standardized methods and databases. Steps included outline objectives, experimental designs, sample size requirements, management issues, geographic locations, proposed protocols, and reporting and use of results (final analysis, method of circulation.)

- Build partnerships for long-term and large-scale monitoring. Develop a collaboration plan, including a mechanism for agreeing on or coordinating priorities (consider cost effectiveness, usefulness of data in resolving management uncertainties, applicability of protocols to multiple species). Request JV Management Boards to develop coordination mechanisms for cooperative monitoring.
- Design programs within the BCRs to address priority questions using State Wildlife Grants. Consider the “Flyway” structure (including more private and state participation).
- Develop a process for ranking priorities. Use Federal Acts. Revisit BCR plans and use emerging State Wildlife Conservation Strategies to consolidate the most important management issues. Identify species with management needs by BCR, bioregion, or similar area.
- Identify the types of management actions for which monitoring is needed. Structure monitoring to assess the effect of management actions in an adaptive management framework.
- Develop a framework to generate institutional support. Demonstrate how cooperation can enhance the power of data to detect change. Describe for each agency how monitoring facilitates wise and adaptive management. Assess staff and financial resources.
- Establish the roles of lead agencies in developing common protocols for “context”, “targeted”, and “cause/effect monitoring.”
- Assess the need for institutional support of expertise in monitoring and spatial statistics. Make sure everyone involved in designing bird surveys (state and federal agencies, JVs, NGOs) can access this expertise. Focus on capacity, especially in states, to accomplish management-oriented design.

Implementation of the blueprint. A third key step was to hold a meeting or workshop of all interested parties. Ideas included:

- Hold a meeting hosted by (IAFWA, FWS, FS?) to look at monitoring needs.
- Convene a workshop to establish teams to design a workable program for each priority management issue.

Question 4: Cite what you believe to be the most pressing management issues that require evaluation though bird monitoring activities.

In total, 35 reviewers commented on the question related to management issues and presented a diverse interpretation of what “management issue” meant. Obviously, a wide range of issues are viewed as important – these range from local to landscape, species to habitat, strategic to operational. The general categories of comments about management issues and related examples follow:

More emphasis on monitoring conservation actions over a broad landscape was viewed as important. Examples of large scale issues included monitoring that informs decisions on large-scale environmental change, broad landscape level changes, environmental and habitat variables to population trends, system function (e.g., nutrient flows, energy flows, hydrology), maintain biodiversity while allowing for a multiplicity of land uses, characterize landscapes regarding suitability for supporting source bird populations, and effects of large-scale threats such as climate change.

Monitoring as a tool to evaluate management actions can only involve local and on-the-ground treatments. Inverse to the above, some reviewers thought that a structured approach (e.g., Adaptive Resource Management) was not viable for larger scale issues (e.g., breeding shorebird populations or the factors influencing their population changes). That is, management-based monitoring is primarily local and unique to specific sites and thus, is somewhat limited. Examples of site-specific management actions include drawdown timing of wetlands for shorebirds, prescribed burns for grassland birds and forest songbird communities, and impacts of isolated freshwater wetland losses on wading bird populations.

Broad habitat restoration and management issues were itemized, although the specific reference to the relationship between habitat and birds was not always apparent. Examples include the importance of frequency and seasonality of fire management on early successional species at risk, impacts of silvicultural techniques on priority songbirds such as Cerulean and Swainson’s Warbler, affects of water management regimes on breeding populations of wading birds, and impact of plans to expand timber harvesting efforts on northern forest species.

A specific link between monitoring and management was most often apparent for harvested or otherwise exploited species. Examples included impacts of development on nesting eagles in Florida, impacts of baitfish netting on waterbird resources, impacts to wintering birds from the napalming of dickcissel roosts in Venezuela, management to reduce wading bird depredation at commercial fish

production facilities, improve mourning dove harvest management harvest strategies, reduction of “incidental take” of seabirds in fisheries, mortality caused by “tall structures” (e.g. radio towers, wind mills, lighted office buildings), and impacts of increasing ungulate populations on ground- and shrub-nesting birds in forest systems.

In a number of instances, species status, distribution, and trends were cited as the management issues. Examples included trends of wintering shorebirds, distribution of short-tailed hawks, population monitoring of Gulf Coast seaside sparrows, winter distribution of yellow rails, status and trend of sea duck populations, presence/absence of rare species, monitoring of landbird migrations, and conservation status of widespread and numerous species.

The near-term need to consider monitoring in the process of developing State Comprehensive Wildlife Conservation Plans was evident, as were more general issues related to conservation planning. Specific emphasis frequently was focused on comprehensive wildlife plans, landowner Incentive Program, abating developmental pressures affecting landscape sustainability, and impacts of Farm Bill programs and soil conservation practices (e.g., CRP CP33 Habitat Buffers, removal of "Swampbuster").

Some comments were related to information needs for which focused research likely would be needed. Included were patch size requirements for birds, minimum species area required for viable populations, energetic values gained by avian species utilizing shrub versus, conflicts between piscivorous birds and fish stocks, and degree to which habitat fragmentation affects how that habitat functions as a source or sink area for target bird populations.

#5 - Miscellaneous items: this category captures reviewers’ comments unrelated to questions #1 to #4.

Respondents submitted 30 comments that were not applicable to the questions #1 to #4. However, these comments add value to the progress for coordinated bird monitoring. These miscellaneous comments were broadly categorized as being issues regarding 1) statistics, 2) monitoring framework, and 3) critique of the process and document.

At least 11 comments were specifically in regard to the statistical discussion in the report, and included method of analysis, hypothesis testing, data storage, and regional assessments. The comments were often lengthy discussions about the use indices as compared to relative density, detection probabilities, statistical hypothesis testing as compared to scientific hypothesis testing, and the need for data storage.

Different monitoring framework and context issues were addressed by 9 comments. Comments included a suggestion that protocols address all aspects of terrestrial biodiversity and address monitoring in unmanaged systems. Other reviewers noted the need to better identify focal species and to monitor vital rates. A monitoring discussion should include the entire conservation process and recommended best use of auxiliary information. One product suggested was a source that identifies the basic principles for monitoring.

At least 10 comments provided criticisms of the report and process. Two comments were in regard to the intended audience for this report and recommended that future reports continue to blend scientist, planner, and administrator needs. Most comments, however, noted unclear and conflicting use of terms, especially management and coordination, commented on general style of the report, or expressed concern about the exclusive process to develop the report.