

# PROBLEMS AND STRATEGIES FOR PASSERINE BIRD MANAGEMENT IN MAINE

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August 9, 2001

## Problems and Strategies for All Groups of Passerines

**Problem 1:** Groups contain too many individual species. Addressing management issues for all species would dilute attention to “at risk” species.

Strategy 1.1: Develop featured species approach using PIF priorities as a basis. Also include species of special concern in Maine as well as species with high proportion of global population (>5%) in Maine.

**Problem 2:** Some species are not well represented on BBS routes, and therefore, evaluating population trends is problematic.

Strategy 2.1: If species that are not currently monitored warrant featured species status, work with partners to develop monitoring program.

**Problem 3:** Relying solely on statewide BBS data to monitor population trends may mask what is happening within populations within regions of our state. An increase in singing males assumes increases in paired males and consequently breeding success. Also, need to evaluate for highest priority species, the appropriate metric from BBS data (e.g., # detected per route, # of stops with a species, etc.) to indicate achievement of population objective.

Strategy 3.1: On a sample of stops along several BBS routes, examine priority species population dynamics. Evaluate which metric, in addition to statewide trend estimates, is most appropriate indicator to use as measure of progress toward meeting population objective.

**Problem 4:** Species may be declining for reasons other than habitat features on the breeding grounds.

Strategy 4.1: Work with partners to maximize quality of breeding habitat and hence productivity in Maine.

Strategy 4.2: Continue to provide the best possible monitoring effort to track population declines.

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**Problem 5:** Habitat objectives assume that habitat quantity or quality on the breeding grounds is limiting populations and that determinants of habitat quality are adequately understood for all priority species.

Strategy 5.1: For high priority species, examine relationships between population dynamics (reproductive success, adult survival, etc.) and habitat quality variables to better assess which species are limited on Maine breeding habitats.

**Problem 6:** MDIFW does not manage enough habitat to meet the needs of all species of passerines, nor is the upland habitat required by some of these species protected by state law.

Strategy 6.1: Significant conservation ownership/easement exists in Maine. Work with Maine Audubon and others to develop Important Bird Areas program. Use a conservation lands coverage together with IBA database to determine what proportion of priority species populations currently occur on “protected” lands.

**Problem 7:** MDIFW does not maintain a current coverage of all conservation lands in Maine. Furthermore, any data that we do have are not updated annually.

Strategy 7.1: Work with Habitat Group and perhaps State Planning Office to determine agency roles in developing and maintaining a current data layer of all lands under conservation ownership/easement.

**Problem 8:** Development of management systems for non-E/T passerines and their implementation need to be integrated, whenever possible, with other species to avoid management actions that compete with one another or that are duplicative.

Strategy 8.1: Work with other WRAS Groups to develop, in some cases, integrated management systems, which encompass the needs of several species given their close habitat association. Initial examples might include: Priority Grassland Passerines/Upland Sandpiper/Grasshopper Sparrow and also Priority Shrubland Passerines/Black Racer/New England Cottontail.

**Problem 9:** Greater outreach regarding passerine conservation in Maine (Northeast?) is sorely needed.

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Strategy 9.1: Develop significant outreach programs, perhaps by partnering with other states in the region via NEPIF or through Cooperative Extension to develop materials addressing domestic cat predation, timing of mowing (“bushhogging” abandoned fields especially), bird feeding and disease, the role of the small landowner, timing and dosages of herbicides and insecticides, towers and other lighted structures.

**Problem 10:** Some species require large patch sizes for a site to be suitable for breeding.

Strategy 10.1: Whenever possible, incorporate patch size into habitat conservation initiatives and acquisition priorities by giving preference to sites with large patches, especially in forest and grassland communities.

**Problem 11:** Some bird populations can reach nuisance levels in localized areas (e.g., Red-winged Blackbirds in sweet corn, roosting and staging at airports).

Strategy 11.1: Develop protocol for dealing with nuisance passerines, presumably through agreement with Regional Biologists.

**Problem 12:** The number and scope of objectives identified by the working group cannot be met with current levels of staffing. Furthermore, there are no Bird Group funds available to address any of the objectives; therefore, all funding will need to be raised from outside sources. That level of fund raising will detract from the amount of time dedicated to actual conservation efforts. More importantly, the Bird Group lacks discretionary money that can be used to match against partner contributions.

Strategy 12.1: The Department needs to obtain additional sources of funding and/or redistribute existing personnel time to ensure progress toward these objectives.

### **Additional Problems and Strategies for Forest Passerines**

**Problem 13:** Length of population cycles for some species may preclude determining long-term patterns within the 15-year planning period.

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Strategy 13.1: Consider extending this objective into the next planning period, depending on progress toward meeting it, while developing long-term partnerships with other agencies and species experts.

**Problem 14**: At population lows for some cyclical species, distribution may be too “spotty” to effectively evaluate trend.

Strategy 14.1: Select featured species (if possible) that have not shown extreme lows during population cycles. However, for this reason, these species may not be the best indicators.

**Problem 15**: Despite several studies examining forest bird habitat selection and response to forestry practices, information on priority species abundance and interaction with congeners is limited. The habitat objective assumes that effects of forest management on bird populations are well known.

Strategy 15.1: Examine habitat relationships that focus on the effects of current forest management practices on priority species (or groups of priority species). Emphasis should be placed on study sites/populations that can be revisited in the future, but recognizing that forest practices are constantly changing. Studies within the current planning period should address the continuum of cutting practices often referred to as “partial cutting.”

**Problem 16**: MDIFW does not have control over changes in forest management practices nor is forest habitat by itself protected by state law.

Strategy 16.1: Assuming industrial forestland will be managed for timber production in the long term, the critical issue is the amount and distribution of various stand types and age classes in space and time (a.k.a. shifting mosaic model). Work with John Hagan and others to develop cooperative agreements with landowners that allow no species to be lost from the landscape. Evaluate a statewide habitat monitoring approach using satellite imagery and GIS to track broad changes in community types. Whenever possible use actual stand data from forest landowners to monitor these trends and to determine relationships between stand data and species abundance.

### **Additional Problems and Strategies for Shrubland Passerines**

**Problem 17**: Improving habitat for shrubland species may lead to increased rates of brood parasitism by Brown-headed Cowbirds.

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Strategy 17.1: Most studies of brood parasitism have not focused on predominantly forested landscapes like those in Maine. Examine presence of landscape-level thresholds above which brood parasitism becomes important. Also, determine effects of new corridors (e.g., Maritimes and Northeast Gas Pipeline) on increasing distribution of brood parasites.

### **Additional Problems and Strategies for Wetland Passerines**

**Problem 18**: Only 3 of 9 species in this category are adequately monitored by the BBS. Determining population trends for all species would require several small monitoring programs.

Strategy 18.1: Prioritize efforts toward meeting this objective by examining the likelihood of population decline. This would entail: 1) species prioritization (presumably based on % of global population in Maine), 2) evaluation of existing trend estimates at the northeast region level, 3) consideration of trends in preferred habitats. Also, use Job 113 matrix to further refine priorities for these species.

**Problem 19**: Wetland habitat cannot be easily created or altered without significant federal review and approval.

Strategy 19.1: Where habitat alteration is critical to species management, enlist partners, especially within the Atlantic Coast Joint Venture, NABCI, and PIF, to work toward raising awareness and thus meeting habitat objectives at the regional level. Develop regional species conservation teams, including multi-agency partners, to address species management.

**Problem 20**: Protecting wetland habitat alone may be insufficient to achieve conservation objectives without protecting upland buffers. The role of upland buffers and their size (width) requirement in different landscapes is poorly understood, as is effectiveness of current set backs provided by shoreland zoning.

Strategy 20.1: Evaluate the need and effectiveness of upland buffers in commercial/suburban vs. undeveloped landscapes. Also, determine the appropriate set back distance (efficacy of buffers) for development near various wetland types (saltmarsh, emergent fresh marsh, riparian/floodplain forest, etc.).

**Additional Problems and Strategies for Grassland Passerines**

**Problem 21:** Only 3 of 5 species in this category are adequately monitored by the BBS. Determining population trends for all species would require small supplemental monitoring programs.

Strategy 21.1: Prioritize efforts toward meeting this objective by examining the likelihood of population decline. This would entail: 1) species prioritization (presumably based on % of global population in Maine), 2) evaluation of existing trend estimates at the northeast region level, 3) consideration of trends in preferred habitats. Also, use Job 113 matrix to further refine priorities for these species.

**Problem 22:** Agricultural practices, chiefly mowing, are linked to significant brood mortality for some species. Farmers are continually trying to harvest hay earlier in the season to maximize production and feed quality, and this exacerbates breeding success for species such as Eastern Meadowlark and Bobolink.

Strategy 22.1: This is a paradox without a simple solution. Some gains may be made through outreach, which encourages “leave strips” or mowing small fields (with presumably lower richness) first, or simply sacrifice bird production in fields close to the farm; fields mowed later (i.e., often leased or rented, of marginal quality, or far from base of operations) will be productive in years when mowing is delayed for any reason (e.g., wet weather, mechanical failure).

**Additional Problems and Strategies for Swallows**

**Problem 23:** Population objective requires developing a monitoring program for Bank Swallows, which are already adequately monitored by the BBS. In contrast, the objective overlooks Northern Rough Winged Swallow for which no trend data exist.

Strategy 23.1: Correct this oversight by replacing, in practice, Bank Swallow with Northern Rough-winged Swallow.