

Missouri's Approach to Grassland Bird Conservation Planning¹

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Missouri's state and federal agencies, nongovernmental organizations and citizens have a partnership called the Grasslands Coalition. The Grasslands Coalition was established to help preserve remaining tallgrass prairie. This includes applying a management regime that enhances natural functions and interactions. The coalition is a state-based effort co-sponsored by the Missouri Prairie Foundation and the Missouri Department of Conservation. The long list of partners includes The Nature Conservancy, the Missouri Coalition for the Environment, Pheasants Forever, National Audubon Society, Missouri Native Plant Society, Quail Unlimited, many Missouri landowners, Ozark Regional Land Trust, Missouri Department of Natural Resources, Natural Resources Conservation Service, Prairies Forever, U.S. Fish and Wildlife Service and many more.

Greater Prairie-Chicken (*Tympanuchus cupido*) and Henslow's Sparrow (*Ammodramus henslowii*) top the list of bird species of concern for birds, but the coalition focus is broader and includes protecting and restoring prairie ecosystems at a landscape level. Other priority bird species of the Missouri grassland suite are Dickcissel (*Spiza americana*), Grasshopper Sparrow (*Ammodramus savannarum*), Northern Bobwhite (*Cotinus virginianus*), Sedge Wren (*Cistothorus platensis*), Bobolink (*Dolichonyx oryzivorus*), Upland Sandpiper (*Bartramia longicauda*), Loggerhead Shrike (*Lanius ludovicianus*), Short-eared Owl (*Asio flammeus*), Northern Harrier (*Circus cyaneus*), and Eastern Meadowlark (*Sturnella magna*) (Fitzgerald et al., 2000).

The Grassland Coalition partners selected nine Focus Areas (FA) and established partnership teams for each focus area. The target FAs were selected from thirty potential sites based on the areas' potential for immediate conservation action and grassland restoration opportunities. The nine FAs range in size from 4,230 to 18,952 ha. Through combining land cover and grassland bird suites in a GIS assessment, we determined where the highest potential was for effective manage-

ment. In other words, focus areas are where prairie-chickens and other grassland birds occur in the state, as well as where the highest percentage of grassland is present in the landscape. The FA teams include agency staffs that have the capacity to effect landscape level changes through incentive programs with willing landowners, management on public lands, and restoration efforts funded by grants on both public and private lands. Partnerships, Focus Areas, targeted restoration efforts, and a capacity to conduct landscape level restoration by the partners have all been helpful in securing grant funds.

As part of an education program for agency staff, students, and the general public, the Grasslands Coalition organized a public event called the "Lek Trek." The event occurred over several months and involved 909 km of back roads hiking by many people who signed up to hike for one to several days. The trek route started on the Iowa and Arkansas borders and traveled from Focus Area to Focus Area during the months from July through October, eventually ending at one of Missouri's largest native prairies at Prairie State Park. Special events were organized at each Focus Area. Special "Learner Days" were arranged, and weekend Prairie Festivals, as well as school and community events occurred in nearby towns. An estimated 7,500 people participated.

We conducted both roadside and point count monitoring in the FAs to test the Partners in Flight Bird Conservation Area (BCA) concept (Fitzgerald and Pashley 2000.) The BCA concept includes an 800-ha core of continuous grassland surrounded by a 3200-ha matrix or buffer zone. There is an additional 800-ha of compatible grassland within the matrix with half in tracts 40-ha or larger. Forest cover should be less than one percent in the core and less than five percent in the matrix. BCAs were superimposed over the Focus Areas. A BCA paired area, not managed for bird habitats, and with similar vegetative composition and size, was circumscribed near each BCA.

We used 50-stop Breeding Bird Survey (Sauer et al. 2001) type roadside point counts placed at 0.8 km intervals on all the roads within the BCA and BCA paired areas. These surveys will give us a measure of relative abundances of all bird species in all habitats within the BCA. Over the 10-year study period these surveys will be used to interpret population trends in abundance.

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We hope to be able to detect any major changes in bird abundances that differ between the managed BCA and the unmanaged BCA.

Other monitoring efforts are underway including point counts in six grassland habitat types to determine where the highest abundances of target species are present. Vegetation monitoring also is being conducted, as is land cover mapping in the bird monitoring areas to facilitate landscape-level analysis. Management within the BCA includes tree removal, shearing invasive woody vegetation off grassland areas, fescue conversion and native prairie restoration. Fire management, rotational grazing, and herbicide control of exotic and invasive species are also tools used in the project.

Partners in Flight has supplied much of the information needed to design the Grassland Coalition's bird monitoring project. Species prioritization, habitat prioritizations, the BCA model, physiographic plans, and effective partnerships already established at the national and regional level, all have been utilized in the project development phase.

As the Grasslands Coalition moves forward, another coalition has been forming called the Missouri Bird Conservation Initiative (MOBCI). It was initiated on 19 April 2001 as a state level implementation partnership and will take on the task of stepping-down the goals and objectives of the North American Bird

Conservation Initiative (NABCI). Once the MOBCI is established then the implementation and project-centered efforts will be developed. The intent of this process is to bring along all partners as motivated, knowledgeable, trusting partners with a common mission, set of values, and focused vision.

Currently a steering committee has been established to review the MOBCI goals and objectives. The team is made up of five agency and five nongovernmental organization representatives, but may expand as new members join MOBCI. This group will be a forum for all bird conservation in Missouri.

Literature Cited

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