

1994

## VDGIF Performance Report 1993-1994 - Rare, Threatened, and Endangered Bird Conservation

R. Reynolds

D. S. Bradshaw

*The Center for Conservation Biology*

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VIRGINIA DEPARTMENT OF GAME & INLAND FISHERIES  
PERFORMANCE REPORT (July 1, 1993 - June 30, 1994)

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PROJECT TITLE:	WILDLIFE CONSERVATION	PROJ. NO:	WE99R-3
STUDY TITLE:	RARE, THREATENED, & ENDANGERED BIRD CONSERVATION	STUDY NO:	IV
JOB TITLE:	RARE BIRD MONITORING	JOB NO:	IX
PERSONNEL:	RICK REYNOLDS, DANA BRADSHAW	COSTS:	
		Total:	\$10,000
		Federal:	\$7,500
		State:	\$2,500

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SUMMARY:

Three regional airports in western Virginia were surveyed for grassland bird species in June, 1994. Five minute point counts and a six minute tape playback of six grassland species (vesper sparrow, grasshopper sparrow, upland sandpiper, eastern meadowlark, bobolink, and northern shrike) were used to survey for birds. Thirty-eight avian species were recorded (Table 1). Two of the tape recorded species, the bobolink and loggerhead shrike, were not observed. Twenty-five species were recorded at two of the airports and 18 species at the third airport. Six of these species (killdeer, upland sandpiper, horned lark, eastern meadowlark, grasshopper sparrow, and vesper sparrow) are regarded as grassland specialists. Five other species (bobwhite, mourning dove, eastern kingbird, field sparrow, and song sparrow) are dependent upon and utilize grasslands extensively. Of the grassland specialist, only two species, the eastern meadowlark and grasshopper sparrow, were observed at all three airports. The killdeer was observed at two of the airports and the horned lark, vesper sparrow, and upland sandpiper were observed at individual airports. One state threatened species, the upland sandpiper (*Bartramia longicauda*), was heard calling at the New River Valley Airport in Dublin.

The draft recovery plan has been reviewed and comments have been incorporated. The revised plan was sent out for final review and several responses have been received. Upon incorporation of the final comments, the plan will be printed. Again this year, a network of volunteers has been established to identify Bewick's's wren nests and verify accuracy. No sightings were discovered or verified this year.

OBJECTIVE A: To develop and implement an effective program for monitoring and protecting Virginia's rare breeding birds.

**Bewick's's Wren**

Final review of the recovery plan has been received from several reviewers and comments are being incorporated. Upon incorporation of the final comments the plan will be printed.

A two year effort to determine the status and distribution of the Bewick's's wren in Virginia was completed this year. Historic sites, and abandoned mine sites were surveyed for the presence of Bewick's's wrens. In addition, mini-Breeding Bird Surveys were conducted in selected potential wren

habitat.

No Bewick's wrens were located at historic breeding sites, old mining sites, or along mini-BBS routes. No Bewick's wrens were reported through the volunteer network or through the Virginia Bird Hotline. Two areas identified last year as potential sightings were surveyed several times through the spring and early summer. Neither area produced Bewick's wrens.

#### Grassland Bird Study

Between June 13-15, 1994, surveys of grassland birds were made of three western Virginia regional airports. Surveys were conducted using a point census technique with a 100 m radius. Each point count began with a five minute survey, during which all birds seen or heard within the 100 m radius were recorded. Birds outside the census radius were also noted when identification was possible. A tape of vesper sparrow, grasshopper sparrow, upland sandpiper, eastern meadowlark, bobolink and northern shrike songs was then played. Each song was approximately 30 seconds long with a 30 second interval between each song. Birds responding to the tape were recorded. Censuses contained 10 to 14 points, depending on extent of grassland area. Points were separated from each other by 200 m, so that point counts did not overlap. Surveys began shortly after sunrise, and concluded within four hours.

On June 13, 1994 a survey was conducted at the Virginia Polytechnic Institute and State University's Airport in Blacksburg. On June 15, 1994, surveys were conducted at the New River Valley Airport in Dublin, and at the Shenandoah Valley Airport in Weyers Cave.

#### FINDINGS:

According to USFWS Breeding Bird Survey results, significant declines in many species of grassland birds in eastern North America have been recorded since the 1960s. Upland sandpiper, vesper sparrow, and grasshopper sparrow, previously common in New York State, are now absent from certain parts of the state and are listed as Species of Special Concern. In Connecticut, the breeding status of upland sandpiper, northern bobwhite, vesper sparrow, savannah sparrow, grasshopper sparrow, bobolink and eastern meadowlark have changed from abundant or common to a status of uncommon or rare. Nine species of grassland birds are listed as endangered, threatened, or species of special concern in New York and the six New England states.

In Virginia, the patterns of decline are similar. The loggerhead shrike and upland sandpiper are listed as state threatened. The grasshopper sparrow is the only grassland specialist that is showing an increase in numbers according to BBS data (table 2). Of the five species dependent upon grasslands as a major part of their habitat, only the song sparrow is showing an increase in numbers (table 2).

Three regional airports were surveyed for the presence and relative abundance of grassland birds. Thirty-eight avian species were recorded with six species being grassland dependent and five other species utilizing grasslands extensively (Table 2). Of the grassland specialist, only two species, the eastern meadowlark and grasshopper sparrow, were observed at all three airports. The killdeer was observed at two of the airports and the horned lark, vesper sparrow, and upland sandpiper were observed at individual airports.

Of the 11 grassland birds identified, the eastern meadowlark was most abundant (table 3). This species was identified at 29 of the 36 points sampled. The next abundant species was the

grasshopper sparrow, identified at 19 of the 36 points sampled. Of the remaining grassland birds, observations were recorded at one-third or fewer of the points sampled. Table 3 describes the number of observations of each grassland bird at each airport.

Table 1. Species observed and number of sample points (#) for each airport.

SPECIES	Shenandoah Valley Airport (12)	VPI&SU Airport (10)	New River Airport (14)
Northern Bobwhite	X		X
Killdeer	X		X
Upland Sandpiper			X
Mourning Dove	X	X	
Rock Dove	X		
Chimney Swift	X		X
Northern Flicker	X		
Downy Woodpecker			X
Eastern Kingbird	X		X
Willow Flycatcher			X
Eastern Wood-Pewee		X	X
Horned Lark	X		X
Barn Swallow	X		
Fish Crow	X		X
American Crow	X	X	
Carolina Wren	X		
Northern Mockingbird	X	X	X
Gray Catbird		X	
Brown Thrasher		X	X
American Robin	X	X	X
Wood Thrush		X	
Eastern Bluebird	X		
European Starling	X	X	
House Sparrow	X		
Eastern Meadowlark	X	X	X
Red-winged Blackbird	X		X
Common Grackle		X	X
Northern Oriole			X
Northern Cardinal	X	X	X
Blue Grosbeak			
Indigo Bunting		X	X
American Goldfinch	X	X	X
Rufous-sided Towhee	X	X	X
Grasshopper Sparrow	X	X	X
Vesper Sparrow			X
Field Sparrow	X	X	X
Song Sparrow	X		X
Total # Species: 38	25	18	25

The group agreed upon the following standards that are in conjunction with the national Partner In Flight (PIF) protocol.

- 1 - Points will be a minimum of 250 meters apart.
- 2 - Counts will be conducted for five minutes with the first three minutes separated from the last two minutes. This will allow pooling data with existing road BBS routes.
- 3 - Birds will also be separated by those within 50 meters and those outside.
- 4 - Each transect will be visited once per year between the last week of May and the third week of June.

In addition, the two National Forests agreed to set up an equal number of routes in managed and unmanaged lands. All other standards will follow those outlined by the National PIF protocol.

**Monitoring:** Several off-road BBS routes were added this year. Two routes were added to the Jefferson National Forest and 10 routes were added to the George Washington National Forest. In addition, a new Monitoring Avian Productivity and Survivorship (MAPS) station was added to the George Washington National Forest. This increases the number of MAPS stations in Virginia to about 20.

**Management:** VDGIF participated in a cooperative project with the U.S. Fish and Wildlife Service U.S. Geological Survey, VIMS, the University of Richmond, and the Alliance for the Chesapeake Bay to look at a watershed approach toward conserving biodiversity in the mid-Atlantic region. The feature project to initiate this effort was a comprehensive standardized bird survey during spring and summer of representative upland and wetland habitats. Habitat selected were all mature and primarily deciduous habitats that sampled the entire length of the Chickahominy River watershed. All sites were visited twice by a single observer to record both migrant and breeding birds. Sightings were mapped on data sheets for compatibility with a GIS base map that was being prepared of both current and historical land cover. Follow-up work was done to quantify vegetative cover of each study site to assess data on bird/habitat relationships relative to other landscape variables, and to further refine GIS map information relative to bird study sites. The data from the bird project has been compiled and entered into a computer database for transport to data analysis facilities at the USFWS. A report on the project should be out next year.

In the interim, this marks the first major effort in the mid-Atlantic to treat wildlife and habitat relationships on such a large scale for the purpose of guiding land management strategies. Additional work is proposed in the future to cover other faunal groups in addition to plant and hydrology linkages. Much effort is continuing outside of the field season to secure agreements with counties and municipalities toward supporting this continued effort and buying into the long-term conservation benefits of using this information in long-term planning decisions.

Table 2. Species, habitat type, state or federal status, and BBS trend (percent annual change) for some grassland and early successional species in Virginia.

SPECIES	HABITAT TYPE	STATUS (STATE/FED)	BBS TREND 1966-1989
Northern Bobwhite	grassland/shrubland	none	-2.8
Killdeer	grassland	none	-1.2
Upland Sandpiper	grassland	state threatened	NA
Mourning Dove	grassland/shrubland	none	-0.9
Eastern Kingbird	grassland/shrubland	none	-4.2
Horned Lark	grassland	none	-2.3
Eastern Meadowlark	grassland	none	-4.6
Grasshopper Sparrow	grassland	none	6.3
Vesper Sparrow	grassland	none	-1.8
Field Sparrow	grassland/shrubland	none	-2.7
Song Sparrow	grassland/shrubland	none	0.3

Table 3. Relative abundance of grassland birds at each airport. Numbers represent the number of sample points where each species was observed.

SPECIES (# OF POINTS)	SHENANDOAH VALLEY AIRPORT (12)	VPI&SU AIRPORT (10)	NEW RIVER AIRPORT (14)
Grasshopper Sparrow	8	2	9
Vesper Sparrow			10
Eastern Meadowlark	12	7	7
Upland Sandpiper			1
Northern Bobwhite	5	5	
Mourning Dove	2		
Eastern Kingbird	1		
Field Sparrow	2	5	
Song Sparrow	3	5	5
Killdeer	2		1
Horned Lark	1		3

OBJECTIVE B: To implement the "Partners in Flight" neotropical migratory bird program in the state.

FINDINGS:

Coordination: A meeting to standardized data collection for off-road breeding bird surveys was held on April 12, 1994. Participants included the Jefferson National Forest, George Washington National Forest, Shenandoah National Park, Blue Ridge Parkway, Virginia Polytechnical Institute, the Smithsonian Institute, and the Virginia Department of Game and Inland Fisheries.