

**NORTHEAST GRASSLAND and SALTMARSH BIRD
WORKING GROUP NEWSLETTER
Partners in Flight - Fall 1999**

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NEW YORK

GRASSLAND BIRD COMMUNITIES ON THE FORT DRUM MILITARY RESERVATION

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The fieldwork for Fort Drum's Grassland Bird study has been completed and a final report is currently being prepared. The objectives of the study include determining the impact of military training maneuvers on grassland birds and their habitat, and assessing nest success for birds breeding in the grassland training areas. Training use was negatively correlated with woody-stemmed vegetation, while analysis of bird abundance relative to training use revealed positive trends for the percent occurrence of Eastern Meadowlark and Savannah Sparrow, and a negative trend for Field Sparrow. Thus suggesting that training use may help to retard the growth of woody-stemmed vegetation, resulting in increased incidence of some species of grassland-dependent birds. Over the past three years, more than 150 nests were located and monitored, most of which belonged to either Bobolink or Savannah Sparrow. Nest success for both species was comparable to that reported in the literature for other locations, suggesting that military training, while helping to retard succession, is not leading to unusually high nest mortality among grassland birds. Fort Drum's ongoing Henslow's Sparrow study should provide additional information regarding the potential impact of training use on the productivity of grassland birds on the installation.

This past field season was the second of a three-year study on Fort Drum to determine the population status and breeding biology of Henslow's Sparrow on the installation. In 1999, Henslow's Sparrow abundance was estimated at 35 pairs, down from 40 pairs the previous year. Twenty-seven birds were mist-netted and color-banded, and five birds from last year were also recaptured. Several males were captured and fitted with radio transmitters to help determine territories, in two of

which, nests were located. One nest had been abandoned, while the second nest successfully fledged two young. Data collection will continue through 2000, and a final report is expected by December 2001.

Fort Drum's Land Condition Trend Analysis (LCTA) program completed its ninth year of data collection in 1999. The purpose of the LCTA program is to monitor the effects of military training on the environment, as well as to monitor long-term trends in bird populations. Each year, point-count surveys are conducted at more than 200 permanent sampling locations in various habitats throughout the installation, including 35 sampling points located in grassland habitat. While not enough data have been compiled thus far to detect any meaningful population trends, over the past several years the five most abundant grassland bird species has remained the same (Bobolink, Savannah Sparrow, Vesper Sparrow, Henslow's Sparrow, and Eastern Meadowlark). Fort Drum has also been operating two MAPS banding stations since 1992, one of which is located in an early successional habitat. Over the past eight years, this station has had a total of 54 species and 3,628 captures. Of this total, four Bobolinks, two Savannah Sparrows, and one Henslow's Sparrow, represent the only grassland bird captures at the site.

GRASSLAND BIRD RESEARCH - WESTERN AND CENTRAL NEW YORK

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My students and I continued work on three research projects during 1999. First, Karla Balent finished the third and final field season of her project on the spatial structure of a Grasshopper Sparrow population in the Mendon Ponds area, which has apparently declined in size since she began her project in 1997. Karla currently is analyzing her data in preparation for writing her thesis. Second, Robin Krebs completed the second of three field seasons on the breeding ecology and habitat selection of Henslow's Sparrows at Fort Drum Military Reservation in Jefferson County, NY. Robin censused grasslands throughout Fort Drum, banded birds, placed radio telemetry devices on a subset of these birds, and carried out detailed vegetation analyses. Third, I continued my long-term monitoring of fields at Iroquois and Montezuma National Wildlife Refuges, including those that have been the subject of management activities designed to improve grassland bird habitat. A student and I also surveyed Jefferson County fields outside of Fort Drum for Henslow's Sparrows. In collaboration with Nick Leone, a local Henslow's Sparrow enthusiast, we have identified 66 fields within 20 km of Watertown that have contained the species since 1994. The maximum number of fields known to be occupied by singing males was 40 in 1998. The cluster of fields in the Jefferson County area, along with those at Fort Drum, must support the largest

known population of Henslow's Sparrows in the region. Finally, in March 1999 I completed an extensive final report for the US Fish and Wildlife Service on grassland bird research carried out primarily between 1994 and 1997 at Iroquois and Montezuma National Wildlife Refuges. Copies of this report can be requested by contacting me at cnorment@brockport.edu. As always, thanks to the US Fish and Wildlife Service, New York State Department of Environmental Conservation, and the Department of Defense for supporting my research on grassland birds.

GRASSLAND BIRD SURVEYS IN NEW YORK

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I was hired by Massachusetts Audubon Society as the researcher for the 1999 grassland bird nesting season in New York State. I surveyed a total of 932 points in 23 counties between late-May and mid-August. I covered a large geographic area in New York, from the western part of New York, south of Buffalo and to the tip of Long Island. The number of birds tallied, particularly Henslow's Sparrow, was most exciting!

Besides following the set protocol for diurnal sampling, I also organized a volunteer night Henslow's Sparrow survey throughout New York. During the night of June 13-14, 7 others and myself went to known Henslow's Sparrow locations and listened once again. In 5 of the 7 locations, additional singing males were detected. The total number tallied for the season, including night counts, was 80. High concentrations were found in the Rochester area (Livingston County) and the southern portion of Steuben County.

Numbers are as follows: BOBO 1512, EAME 418, GRSP 362, HESP 51, HOLA 20, NOHA 7, RWBL 1637, SASP 1238, UPSA 41, and VESP 16. I hope to assist in any further counts planned for 2000. Currently, I am working on a written grassland conservation project with Jeff Wells of National Audubon Society.

NEW HAMPSHIRE

SUMMARY OF GRASSLAND BIRD SURVEYS IN NEW HAMPSHIRE AND VERMONT

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Approximately 35 grassland sites were surveyed in New Hampshire and Vermont in the summer of 1999. Sites were almost entirely limited to the Champlain, Connecticut, and Merrimack Valleys, and the NH seacoast. Vermont sites were primarily sites that contained Grasshopper Sparrows in 1997, and NH sites were chosen based on a combination of size and the presence of a relatively high diversity of grassland birds (again, based on 1997 data).

Grasshopper Sparrows were located on roughly half the Vermont sites. More significantly, a total of at least 10 territories were detected at 6 NH sites, a total unprecedented in at least the last two decades in the state. Most were found at relatively small sites, with the exception of the Pease International Tradeport in Portsmouth/Newington, and the Concord airport. Vesper Sparrows were usually found in the same areas as Grasshopper Sparrows, as well as a few sites in the Connecticut Valley. Upland Sandpipers were detected at only 2 sites in each state. The regional stronghold remains the Pease Tradeport, where roughly a dozen pairs are located. An additional pair was present at the Manchester, NH airport, providing the first confirmed evidence of this species for that site.

MAINE SALTMARSH BIRD SURVEYS

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Saltmarsh habitats are important brood-rearing areas for waterfowl, foraging areas for wading birds, and nesting areas for a few less common species of songbirds. Nelson's and Saltmarsh Sharp-tailed Sparrows occur almost exclusively in this habitat type. Understanding the status of these species is a conservation priority in the northeast. In Maine, however, even their breeding range is not well-defined. Biologists with the Maine Department of Inland Fisheries and Wildlife are completing the third year of a 3-year coastwide survey of the birds using Maine's saltmarsh resource. The first year of the survey covered just the southern Maine marshes. In the second year, we revisited some of these same sites and expanded northeastward as far as Penobscot Bay. During 1999, our final year, we surveyed the often smaller marshes found along eastern Maine's "Downeast" coast. Knowledge of the distribution and types of saltmarsh habitats occupied by Sharp-tailed Sparrows and others species is important in prioritizing land acquisitions and in oil spill response and mitigation.

MASSACHUSETTS

GRASSHOPPER SPARROW BREEDING BIOLOGY AND METAPOPOPULATION STUDY

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During the 1999 field season, 2 interns were hired to help with the fourth year of our metapopulation study. In addition, 10 volunteers helped collect data. Grasshopper Sparrows were banded in Massachusetts at Westover Air Reserve Base in Chicopee and on Nashawena Island, where banding has occurred since 1996. Efforts also focused on relocating birds banded at these sites for the past 3 years. In total, 602 birds have been banded at primarily at Westover and Nashawena but also at several smaller populations including Turners Falls Airport, Devens, and Dukes County Airport, Martha's Vineyard. We completed the fourth and final year of evaluating reproductive success in permanent plots at Westover and Nashawena. Reproductive success and banding studies will continue at Hanscom Field and Devens. This data is being collected by long-time volunteer Ron Lockwood.

Banding and reproductive success studies continued at 4 satellite sites in the state. All known Grasshopper Sparrow breeding sites in the state were surveyed at least once to search for dispersed individuals. Several meetings have occurred with managers of both Nashawena and Westover Air Reserve Base to discuss future management options and results of this study. Efforts are also underway to consult with these landowners to discuss the direction of future grassland bird research, conservation, and management techniques.

THE EFFECTS OF HABITAT RESTORATION ON GRASSLAND AND SHRUBLAND BIRDS OF NANTUCKET

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In New England, grassland restoration is a relatively new form of conservation by which grassland is created and sustained through intensive management methods such as prescribed burning and intensive mowing. On Nantucket Island, the

Partnership for Harrier Habitat Preservation (PHHP) is conducting a 50-year grassland management plan aimed at creating over 400 hectares of grassland for the island's population of northern harriers (*Accipiter gentilis*). The Massachusetts Audubon Society is conducting a three-year study addressing the effects of management on declining populations of grassland and shrubland birds.

Management methods, such as prescribed burning and mowing, have potentially significant impacts on bird communities. Several studies in the Midwest have shown that grassland restoration can create and sustain grassland habitat, but research addressing possible negative side effects has been limited. Intensive habitat restoration can, in effect, transform the landscape overnight. The ecological impacts of this dramatic change in habitat must be studied when considering the regional declines of many of the effected species of birds. Considering that many coastal grassland and heathland systems are regionally rare, we must address the effects of these management programs. The use of habitat management can be beneficial in re-creating the natural disturbances that are historically important to New England's fauna and flora; however, there is a critical need to study and analyze the effects of this management on populations of grassland and shrubland birds.

GRASSLAND BIRD SURVEY AT WESTOVER AIR RESERVE BASE

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I conducted a comprehensive census of grassland birds at Westover Air Reserve Base in Chicopee, Massachusetts during the mornings of 10, 11, 12, 13, 14, and 16 June 1999, with assistance from Andrea Jones and Justin Schoefer of Massachusetts Audubon Society. All grassland areas on the base were censused by walking transects spaced approximately 100 m apart and recording locations of birds detected. Results included: 154 adult Upland Sandpipers, 169 singing male Grasshopper Sparrows, 81 singing male Savannah Sparrows, 91 adult Eastern Meadowlarks, 55 adult male Bobolinks, 74 adult Horned Larks, 15 adult Killdeer, and 18 adult male Red-winged Blackbirds. These totals represent increases over 1997 counts for Upland Sandpipers, Grasshopper Sparrows, and Eastern Meadowlarks. Numbers of Bobolinks, Horned Larks, and Red-winged Blackbirds declined relative to 1997 counts, while counts of Savannah Sparrows and Killdeer were essentially unchanged.

Acreages of grassland and other "tree-less" habitat on the airfield increased slightly in 1999 as the result of capping a small landfill and removing trees at certain locations

to widen clear zones for aircraft safety. MassWildlife provided comments on the Draft Fish and Wildlife/Threatened and Endangered Species Management Plan for the base, and expressed concern that proposed vegetation management, ie. increased frequency of mowing, would degrade the quality of habitat for Grasshopper Sparrows and likely result in direct mortality of eggs and young of Upland Sandpipers and Grasshopper Sparrows. We also expressed concern that the draft plan failed to provide clear guidelines for the timing and location of parking on grassland habitat for airshows and other public events, and failed to establish clear procedures for review by MassWildlife of proposed construction activities for compliance with our state Endangered Species Act.

RHODE ISLAND

EFFECTS OF GRASSLAND BIRD HABITAT RESTORATION ON BREEDING BIRDS

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The US Fish and Wildlife Service has been restoring grasslands on two refuges in southern Rhode Island for the past three years. During the 1999 field season, we initiated research to quantify the effects of grassland restoration efforts on breeding birds. We spot-mapped eight fields (8 - 40 acres) on Trustom and Ninigret National Wildlife Refuges from late-May to early July. We also quantified vegetation composition at each field. Fifty-one species of birds were detected during fieldwork, of which only a few were grassland obligates. Bobolinks were found nesting in two fields on Trustom NWR, one pair on a 15-acre field dominated by big bluestem (*Andropogon gerardii*), and Timothy grass (*Phleum pratense*), and 2-3 pairs on a 40-acre field where big bluestem, smooth brome-grass (*Bromus inermis*) and three-veined goldenrod (*Euthamia graminifolia*) were abundant. Savannah Sparrows, 2 pairs, were found nesting only in the 40-acre field. In late-July, staging flocks of up to 100 Bobolinks were observed foraging in this large, 40-acre field on the southeastern edge of Trustom NWR (we were able to band 17 Bobolinks from these staging flocks). Red-winged Blackbirds were the only grassland bird that nested in every field we surveyed. Other grassland-associated birds (e.g., Eastern Meadowlarks, Northern Harrier, and American Kestrel) were observed foraging in the fields we surveyed, but there was no evidence they nested in the fields we monitored.

Based on our fieldwork, we recommended to US Fish and Wildlife Service staff that they remove shrubs and trees between adjacent fields to increase the size of existing grasslands on Trustom NWR. It is hoped that increasing the grassland acreage might increase the number of Bobolinks, Savannah Sparrows, and meadowlarks in the area. We also recommended that they continue to remove runways, shrubs, and trees at Ninigret NWR to increase the grassland acreage on that refuge. We hope to continue monitoring the grassland restoration efforts on these refuge lands for the next several years.

CONNECTICUT

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Grassland bird surveys were conducted throughout Connecticut by volunteers and volunteer coordinator Peter Houlihan, used standard point count methods. Massachusetts Audubon's Grassland Conservation Program was contracted to conduct a study of grassland bird productivity at Bradley International Airport in Windsor, CT. Peter Houlihan was hired to conduct the survey and write a final report. Permanent point counts were established as well as a permanent plot to monitor reproductive success of Grasshopper Sparrows, Savannah sparrow, and Bobolinks. Although the airport agreed not to mow the airport in known grassland bird breeding locations, data showed very low reproductive activity this year, most likely due to extreme drought conditions. Recommendations for continued monitoring and management of grassland birds at the airport were presented to airport personnel. For a copy of this report, please contact Jenny Dickson or Andrea Jones.

NEW JERSEY

GRASSLAND RESTORATION

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The Phillipsburg Riverview Organization acquired a 128-acre parcel in Warren County, New Jersey that is part of an area known as the Alpha or Pohatcong Grasslands. It is a breeding site for 5 state-listed T&E grassland bird species. Over-wintering T&E species include Northern Harrier and Short Eared Owl. The property has been farmed for many years in rotating grain crops and our organization decided to establish a mixture of warm season grasses on 80 acres of the parcel. Forty acres were planted during the last week of May and first week of June. Approximately 20 acres were left fallow and the balance was leased to a local farmer who planted corn and soybeans. Unfortunately, our immediate area experienced the most severe drought on record this summer and it started as soon as the crop was planted. We had only one significant rainfall between the time we planted and some time at the end of August. There is speculation that many of the seeds might not have germinated and may survive to germinate at a later time. Since warm season grasses are slow to establish themselves, it will be some time before we will be able to truly assess the damage. The lesson here is that even though these grasses can be planted as late as the end of June, the weather can become very dry in this region during the months of July and August and late planting could be risky.

Another miscalculation was an inadequate program of weed control almost from the inception. As a result we have a problem with Canada Thistle and Johnson Grass that has caused some alarm among the neighboring farmers. The difficulties posed by exotic and aggressive plant species have not yet been fully appreciated by the organization. The good news is that the mixture of clumpy weeds and bare ground seem to have provided good habitat for our rarest species, vesper sparrow.

PENNSYLVANIA

PRELIMINARY RESULTS OF THE 1999 GRASSLAND BIRD SURVEYS IN PENNSYLVANIA

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NE Regional grassland survey point count protocols were used on randomly selected reclaimed mines in Pennsylvania during 1999. A total of 167 points were completed by two short-term employees in a seven-county area. In addition to point counts, line transects (distance data) and detailed vegetation sampling were conducted. This survey was designed to obtain an estimate of populations of three grassland sparrows (Grasshopper, Savannah, and Henslow's) on reclaimed mines in western Pennsylvania. Future analysis will link density estimates with GIS landcover data in order to compute an estimate of the population of these species. GIS analysis and surveys were funded by the Pennsylvania Game Commission and the USFWS Section 6 program.

More than a thousand birds were counted on the 167 points, inclusive of more than 300 Red-winged Blackbirds, 196 Eastern Meadowlarks, and 156 Bobolinks. The most frequently encountered of the sparrows was the Grasshopper Sparrow, with a total of 229 on point counts. A total of 197 Henslow's Sparrows and 127 Savannah Sparrows were also counted. Just two Upland Sandpipers were detected. Henslow's Sparrow populations were not uniformly common on reclaimed surface mines. High counts were found at traditional hot-spots in Clarion County, but good numbers were also found in other counties of northwestern Pennsylvania and in isolated locations to the south.

REGIONAL

REGIONAL GRASSLAND BIRD PROGRAM

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During the 1999 field season, we hired 6 interns to continue our regional survey started in 1997. Our goal during this field season was to survey areas not adequately covered in 1997 and revisit top sites in each state. For each state, we identified the best sites in each state, based on species abundance and presence of rare species - Upland Sandpiper, Grasshopper Sparrow, Vesper Sparrow, and/or Henslow's Sparrow. In addition, we targeted gaps in the 1997 data such as western and southern New York and the Champlain Valley in Vermont. Data was collected using the same point-count method used in 1997 and interns established landowner contact at most sites. In addition, interns also recruited and managed volunteers to help with surveys. Below is a summary of estimated number of sites surveyed in each state.

STATE	# SITES
NY	148
MA	55
CT	20
RI	5
NH/E. VT	36
VT	20
ME	48
TOTAL	332

Grassland sites in New York were concentrated within a 300-mile radius of Ithaca, western NY and the Finger Lakes, and southern NY, including Long Island. Efforts in New York were particularly focused on finding additional breeding sites for Henslow's Sparrows; night time surveyed were incorporated to increase detectability. Staff at the National Audubon Society in New York participated in organizing survey effort. Grassland sites in New Hampshire focused on large farmlands and

regional airports. Efforts in Vermont were concentrated on many small airports in the state and farmlands in northern Vermont. Vermont Audubon Council and Vermont Fish and Game coordinated surveys with volunteers. In addition, in consultation with the Massachusetts Audubon Society, Vermont Audubon Council distributed management recommendations to airport managers throughout the state. Efforts in Maine were concentrated on large grassland bird breeding areas in blueberry barrens in eastern Maine. Additional surveys were conducted to locate Short-eared Owl breeding areas. All surveys in Maine were coordinated by Maine Inland Fisheries and Wildlife. In Massachusetts, surveys were concentrated on revisiting top sites first surveyed in 1993-1995 and also on sites selected by Silvio Conte National Fish and Wildlife Refuge in the Connecticut River Valley. Surveys were also coordinated with the Massachusetts Division of Fisheries and Wildlife. Efforts in Massachusetts also

focused on large grasslands at military bases. Sites in Connecticut were selected and organized by Connecticut Department of Environmental Protection.

New Grassland Bird Book!! Proceedings of the International Grassland Bird Conference in Oklahoma in 1995 are now available. **Ecology and Conservation of Grassland Birds of the Western Hemisphere**, Peter D. Vickery and James R. Herkert, editors, can be ordered by sending \$25 (includes postage/handling) to: Cooper Ornithological Society, c/o Western Foundation of Vertebrate Zoology, 439 Calle San Pablo, Camarillo, CA 93010. Make check payable to Cooper Ornithological Society.

REGIONAL SALT MARSH BIRD PROGRAM

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The first field season of the New England Salt Marsh Breeding Bird Survey was completed 13 August 1999 with 155 salt marshes surveyed between Greenwich, CT and Rye, NH. Five interns were hired throughout the four state region (CT, RI, MA, and NH) in the spring and all were trained in the survey protocol prior to data collection. We met with local researchers and state agencies in all states to inform them about the project and encourage participation. An important goal of this project was to establish contacts and coordinate with ongoing researchers, and to solicit the assistance of local volunteers for the survey work. We now have many contacts and volunteers that have committed to "adopting a marsh" for future survey and monitoring work. We coordinated with the USFWS by providing them with our survey protocol which they plan to use on refuge property throughout USFWS Region 5. We also coordinated with the Global Program of Action for the Gulf of Maine to assist with determining the effects of salt marsh restoration projects on breeding birds and provided our survey protocol to insure standardization of data collection.

Avian and vegetation data were collected on 661, 100 m radius circular points throughout the four state region (Table 1). All points were visited at least twice between 1 June and 13 August to sample breeding birds. Vegetation profiles at each point were collected to determine differences in regional patterns of habitat use and availability. Data are being entered into a database for future analysis. Contacts have been made to acquire GIS coverages of salt marsh habitat on a state level to provide base maps to display the distribution and abundance of breeding salt marsh birds throughout New England. We will also use these coverages to determine salt marsh size, isolation, and level of human disturbance and to relate these parameters to salt marsh bird species distributions. In a companion study, the Maine Department of Inland Fisheries and Wildlife completed their three-year survey of coastal Maine. They

will provide the data to complete the coverage of salt marsh habitats for all New England states.

Table 1. The number of tidal marshes and points surveyed within the four state region of the Salt Marsh Breeding Bird Survey, 1999.

State	County	Marshes	Points
Connecticut	New London	18	38
	Middlesex	13	31
	New Haven	41	64
	Fairfield	12	24
	TOTAL	84	157
Rhode Island	Washington	9	23
	Bristol	11	14
	Providence	1	1
	Newport	10	14
	Kent	3	3
	TOTAL	34	55
Massachusetts	Barnstable	22	55
	Essex	7	53
	TOTAL	29	108
New Hampshire	Rockingham	3	21
GRAND TOTAL		150	661
