

Final Report to Illinois Department of Natural Resources Wildlife Preservation Fund Grant Program

Grant Agreement # 10-005W

Grantee Name/Address: Bird Conservation Network
1718 Sherman Ave., Suite 210
Evanston, IL 60201

Time Frame: September 2009 to April 2010

Grantee Representative: Glenn Gabanski
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Inventory of Land Birds in Northeast Illinois

Introduction:

The BCN Census, which began in 1997, is a breeding season inventory program implemented in the Chicago Wilderness (CW) region by the BCN. Inventory volunteers (monitors) are recruited and trained in conjunction with land management agencies throughout the region. Approximately 180 experienced volunteer monitors now collect data in 6 counties through methods developed in 1997 by a team of CW land managers, birders and ornithologists. The methods are point count, transect and checklist. Data is entered on line using a specially adapted version of eBird, developed with BirdSource, a joint project of the Cornell University Lab of Ornithology and the National Audubon Society. The database is shared with land managers and researchers annually. The primary purpose for the collection of these data is to provide land managers with information that can help guide restoration practices. The BCN database has grown to over 180,000 records.

A second use of the database is to describe local population trends for species of concern. Analysis of population trends done in 2007 showed that the database is large enough to yield credible trends for 59 species. Results can be viewed at <http://bcnbirds.org/trends07/>. Additional years of data with more volunteers and sites inventoried are needed to increase the number of species with credible trends and allow more refined methods of analysis focusing on specific habitats and species. In addition, we have recently attached preliminary habitat data to each site and will be asking our monitors to ground-truth and update that data.

The inventory is an on-going program as additional years of data provide more accurate and robust results. Each year volunteers are provided with materials such as GPS units, CD's of bird songs, maps of sites, and recording forms. Volunteers enter data via BCN eBird <http://ebird.org/content/bcn/>. Data from eBird is augmented with information such as landowner and habitat, and made available to landowners, researchers and regulators. Funds are needed to provide the materials for the volunteers and to pay for maintenance and distribution of the database.

Objectives:

- 1) To recruit and train new volunteers for the BCN inventory.
- 2) To have the volunteers gather data on regional land bird distribution in a scientifically robust manner and enter it into BCN eBird. The inventory protocols are designed to ensure that the data gathered is useful to land managers and will allow BCN to collaborate with the land managers on using the data to adjust management goals.
- 3) To manage the database and disperse the data to the land managers.
- 4) To update our database with accurate habitat information.

Materials and Methods:

1) Volunteers are recruited through local bird clubs, forest preserve programs, and the Internet and trained by experienced monitors and land managers. In March and April of 2010 workshops will be held in three locations in the Chicago Wilderness area to train the volunteers. CD's of bird songs and the Birds of Concern brochure are produced to aid the volunteers in recognizing the birds present.

2) Volunteers use one of three standardized monitoring protocols: Point Counts, Transects, and Timed Observations. Volunteers then enter data into eBird or send recording forms to BCN for entry. (See attached guide and reporting forms for more information).

Volunteers use GPS units to determine or verify the location of monitoring points or transect locations.

To accurately assess the habitat at each monitoring location a map of site is printed and a Habitat Information Form and a BCN Habitat Categories list are mailed to each volunteer. The volunteers will then complete the Habitat Information Form using the GPS and the categories list and then either mail in the form or enter the data on-line.

3) A consultant will develop the new forms, maintain the database and disperse relevant data to the various land managers.

4) Audubon Chicago Region staff will work with the monitors and the consultant to ensure that habitat information in the database is accurate. Audubon Chicago Region staff will also respond to requests from volunteers and land managers for information about the data for their sites.

Results:

Using funds from BCN and from the IWPF grant 8 Garmin eTrex H GPS units were purchased and 100 CD's of bird songs were produced. Maps of each site were printed, and a Habitat Information Form and BCN Habitat Categories were created and printed. A color brochure of Birds of Concern was designed and printed to aid volunteers in knowing which birds were of most interest to the BCN survey. Each map of a location was matched with the volunteer who monitors the site and it, along the other printed items, was all mailed to each volunteer.

Discussion:

Each year BCN collects data for the survey using volunteers using its own resources. In 2007 an analysis of the data was done to determine population trends for breeding birds. (See <http://bcnbirds.org/trends07/>). After more years of data are collected another analysis will be done.

After the 2007 analysis science advisors determined that the lack of randomly selected monitoring locations reduced the statistical value of the results. They suggested that a more accurate assessment of habitat would make the data more robust and lead to more reliable trends. In 2010 the funds from the IWPF Grant will allow BCN to accurately assess the habitat at each monitoring location, as well as to clearly describe the point selection methods. This information will allow a more statistically robust analysis in the future.

Summary:

Our interest in undertaking BCN Survey was to determine how useful a large citizen science database could be in yielding trends for bird species. We found that the survey does yield useful trends now, and we expect its usefulness to grow as the years of data amass. The analysis allows us to better define how our trend information can be used and how our data gathering can yield the most useful information. Each year we try to improve the quality of the data collected and BCN is grateful to the IWPF Grant for providing us with the resources to add the habitat assessment component and description of point selection method to our 2010 monitoring protocol.

The more statistically valid results of future analyses of the BCN database will provide land managers with useful information to implement and assess habitat preservation and restoration efforts. This will benefit the birds that breed in the Chicago Wilderness region and provide people with natural areas to enjoy and observe wildlife. A very useful result of the grant is the Birds of Concern brochure. It highlights bird species that are in

decline in our area and informs knowledgeable birders, land managers and the general public of this important issue. In addition to helping the BCN volunteer monitors, these brochures will also be distributed to local bird clubs, Audubon societies, stewards groups, and other interested groups.

CHICAGO WILDERNESS REGION BIRDS OF CONCERN



RED-HEADED WOODPECKER DAVE MENKE / USFWS

BIRD CONSERVATION NETWORK
WWW.BCNBIRDS.ORG

This project was funded by the Illinois Department of Natural Resources from contributions to the Illinois Wildlife Preservation Fund.

| GRASSLANDS | | | SHRUBLANDS | | | WOODLANDS | | |
|---------------------|--------|-------|---------------------|--------|-------|--------------------------|--------|-------|
| SPECIES | STATUS | FREQ. | SPECIES | STATUS | FREQ. | SPECIES | STATUS | FREQ. |
| HENSLOW'S SPARROW | CW-PR1 | 14.5 | BLACK-BILLED CUCKOO | CW-PR1 | 0.7 | RED-HEADED WOODPECKER | CW-PR1 | 2.5 |
| DICKCISSEL | CW-PR1 | 11.8 | NORTHERN BOBWHITE | CW-PR1 | 0.3 | CERULEAN WARBLER | CW-PR1 | 0.1 |
| GRASSHOPPER SPARROW | CW-PR1 | 15.7 | LOGGERHEAD SHRIKE | CW-PR1 | 0.0 | BLACK-BILLED CUCKOO | CW-PR1 | 0.7 |
| BOBOLINK | CW-PR1 | 20.4 | BELL'S VIREO | CW-PR2 | 0.2 | WHIP-POOR-WILL | CW-PR1 | 0.0 |
| SEDGE WREN | CW-PR2 | 12.6 | BLUE-WINGED WARBLER | CW-PR2 | 2.0 | GREAT CRESTED FLYCATCHER | CW-PR1 | 0.0 |
| SHORT-EARED OWL | CW-PR2 | 0.0 | WILLOW FLYCATCHER | CW-PR2 | 17.5 | NORTHERN FLICKER | CW-PR2 | 17.1 |
| NORTHERN HARRIER | CW-PR2 | 0.5 | YELLOW-BREADED CHAT | CW-PR2 | 2.4 | CHIMNEY SWIFT | CW-PR2 | 25.7 |
| UPLAND SANDPIPER | CW-PR2 | 0.1 | BROWN THRASHER | CW-PR2 | 12.7 | YELLOW-BILLED CUCKOO | CW-PR2 | 4.9 |
| EASTERN MEADOWLARK | CW-PR2 | 25.2 | FIELD SPARROW | CW-PR2 | 27.6 | VEERY | CW-PR2 | 2.2 |
| WESTERN MEADOWLARK | CW-PR3 | 0.3 | VESPER SPARROW | CW-PR3 | 1.2 | WOOD THRUSH | CW-PR2 | 1.1 |
| SWAINSON'S HAWK | IL-ENG | 0.0 | ORCHARD ORIOLE | CW-PR3 | 5.0 | LOUISIANA WATER THRUSH | CW-PR3 | 10.8 |
| | | | EASTERN KINGBIRD | CW-PR3 | 17.4 | PROTHONOTARY WARBLER | CW-PR3 | 0.0 |
| | | | | | | ROSE-BREADED GROSBEAK | CW-PR3 | 0.1 |
| | | | | | | | | 7.2 |

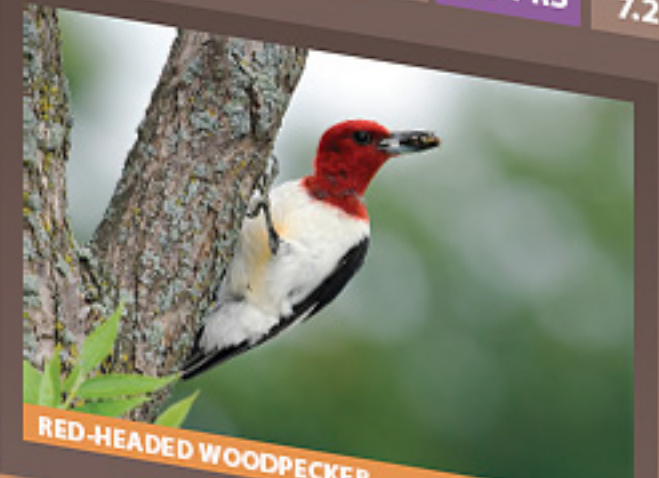


BOBOLINK

© DAVID WATKINS



YELLOW-BREADED CHAT © ARLENE KOZIOL



RED-HEADED WOODPECKER

© CHARLES BRUTLAG

THE BIRD CONSERVATION NETWORK BIRDS OF CONCERN LIST WILL HELP BIRDERS, VOLUNTEERS, AND LAND MANAGERS BECOME AWARE OF SPECIES THAT NEED PRIORITY ATTENTION IN THE CHICAGO WILDERNESS REGION.



A BOBOLINK RETURNS TO AN AREA THAT WAS RECENTLY RESTORED. PROPERLY CLASSIFYING DYNAMIC HABITATS LIKE THESE WILL HELP THE BIRD CONSERVATION NETWORK PRODUCE MORE ACCURATE SPECIES POPULATION TRENDS.



HABITAT INFORMATION FORM (Point Counts)

DATE: ___ / ___ / ___

LOCATION: _____

COUNTY: _____

| | |
|------------------|--|
| Full Name: _____ | Habitat data obtained by: <input type="checkbox"/> Monitor <input type="checkbox"/> Land Manager <input type="checkbox"/> Other |
|------------------|--|

Directions: "Point Number" - Enter the number of the point (as you would number it when submitting data)

"Primary Habitat" - Select number of habitat type from "BCN Habitat Categories" Sheet (e.g., A1a for oak woodland with shrubs)

"% of count area" - Estimate the amount of the count area / circle that the habitat covers (to the nearest 10%)

"Second / Third Habitat" - Enter information for up to three habitats if more than one habitat is dominant

| POINT NUMBER: | | | | | | | | |
|-------------------------------------|---|---|---|---|---|---|---|---|
| PRIMARY HABITAT: | | | | | | | | 1 |
| % of count area: | % | % | % | % | % | % | % | |
| Second Habitat (if present): | | | | | | | | 2 |
| % of count area: | % | % | % | % | % | % | % | |
| Third Habitat (if present): | | | | | | | | 3 |
| % of count area: | % | % | % | % | % | % | % | |

DISTURBANCES AT POINTS

(check all that apply)

| | | | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|
| Point is along a wide trail or road (other than a narrow footpath) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A |
| Loud noise interferes with the ability to hear birds at this point | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B |
| View of area is compromised by objects or dense understory | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C |

POINT SELECTION METHOD

(why point was placed where it is, check one)

| | | | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|
| Point was placed where birds were expected to be seen | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1 |
| Point was randomly placed within a <i>habitat</i> (describe method below) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2 |
| Point was randomly placed within a <i>site</i> (describe method below) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3 |
| Points were placed at intervals of _____ along a straight line | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4 |
| Points were placed at intervals of _____ along a trail or road | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5 |
| Point chosen by land manager (method unknown / not above) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6 |
| Unknown / Other if other please describe below | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7 |

Questions?: 847-328-1250
jpollock@audubon.org

Enter your data online at www.bcnbirds.org/habitats.html or mail your form to:
Bird Conservation Network - 1718 Sherman Avenue, #210 - Evanston, IL 60201

VOLUNTEER BIRD MONITORS ENTER HABITAT INFORMATION ABOUT THEIR MONITORING POINTS USING EASY TO UNDERSTAND PRINT & ONLINE FORMS.



HABITAT FORMS AND GPS UNITS HELP VOLUNTEER BIRD MONITORS CHECK THE ACCURACY OF POINT COUNT LOCATIONS & RECORD HABITAT INFORMATION & CHANGES THAT MAY NOT BE OBTAINABLE FROM SATELLITE PHOTOS OR OTHER SOURCES.









SAUER FAMILY PRAIRIE KANE BLITZ 2009



KANE COUNTY IL



KILLDEER



GRASSHOPPER SPARROW

Home Create External Data Database Tools Acrobat

View Views Clipboard Font Rich Text Records

Refresh All

New Save Delete More

Totals Spelling

HabitatData

Enter Habitat Data

ID: DATE:

LOCATION: COUNTY:

Full Name: Habitat data obtained by:

POINT NUMBER:

eBirdLocName:

If uncertain or can't find, please leave blank

PRIMARY HABITAT: %: 1

Second Habitat: %: 2

Third Habitat: %: 3

Point along trail or road: A

Loud Noise Interferes: B

View of Area Compromised: C

Point Selection Method: 1-6 Interval:

Enter in meters only

Next Point (same form)

New Point (new form)

Record: 1 of 2 No Filter Search

Form View

DEVELOPMENT OF A SUPPLEMENTAL DATABASE WILL HELP THE BIRD CONSERVATION NETWORK ORGANIZE INFORMATION THAT CANNOT BE ENTERED THROUGH THE EXISTING BCN EBIRD DATABASE AND WEBSITE.