

Monitoring Protocol – Experienced Birders

Monitoring response of Migrant Bird Populations to Habitat Restoration

LaBagh Woods, Montrose Point, Burnham Wildlife Corridor

Bird Conservation Network, Forest Preserves of Cook County, Chicago Park District, US Fish and Wildlife Service, Lincoln Park Zoo Urban Wildlife Institute, Field Museum, Chicago Ornithological Society

Developed –April 2016

Overview

A Chicago partnership was formed under the US Fish and Wildlife Service's Urban Treaty for Migratory Birds program. Eight Chicago partner organizations are joining to restore a total of 40 acres of migratory landbird stopover habitat in two large sites, LaBagh Woods and Burnham Wildlife Corridor, to monitor results of restoration at those two sites and a third, Montrose Point, and to expand community engagement in bird appreciation and conservation.

The three restoration projects address the key threat of lack of stopover habitat in an urban area for the tens of thousands of migrant landbirds trapped over Lake Michigan at daybreak. A report describing priority migratory stopover habitat in the Chicago region (Ewert, 2008) assigned the highest ranking to our 2 sites, LaBagh Woods and Burnham Wildlife Corridor, due to the dense urban development surrounding them and their respective locations in a wide riparian strip and on the lakefront. Habitat preferences of migratory birds of conservation concern were studied in the Chicago area. (See study at: <http://www.habitatproject.org/webdocs/birds/migranthabitatstudy.pdf> .)

The purpose of this monitoring program is to determine the effectiveness of the restorations in maintaining migratory bird habitat at Montrose and LaBagh, and increasing it at the Burnham Wildlife Corridor. Data collected will be analyzed and shared with land managers, monitors and stewardship volunteers. The specific questions that will be looked at are:

1. How does habitat restoration affect species richness and abundance of migratory birds?

Which habitat structures (including varying aged plantings) are used more frequently by specific bird species and guilds?

2. Which plantings are used more frequently by specific bird species and guilds?

Monitoring the impacts of restoration on migratory bird populations is needed. This protocol addresses the difficulty of making comparisons of how migrants use sites, given that the number of migrants at a site frequently changes in response to weather conditions and date. The protocol has been developed in coordination with the Lincoln Park Zoo's Urban Wildlife Institute and the Field Museum. Data are collected according to standardized protocols so that they can be compared to data collected at other sites in the region and will provide valid long-term monitoring.

Procedures

Overview:

Observers will use three different methods to collect data about the migratory bird community each day they go out. Point counts will be conducted to relate community composition to restoration

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activities around LaBagh and Montrose wherein the observer records all birds seen or heard over 5 minutes at a specific location. Following this, a 5-minute foraging survey will be done in the same location to determine if migrants selectively use different habitat structures (e.g. shrubs, tree canopy, etc.). Finally, a daily checklist is collected throughout the entire site visit, which consists of a list of all bird species seen or heard while the observer is at the site (whether or not the bird is observed during a point count or foraging survey). The foraging study may not be appropriate on certain days, and will only be conducted at half the points points.

Observers: We ask that at least one observer from each party have a good knowledge of the appearance and songs of the birds that may be observed. Any number of observers may participate in point counts and in preparing the daily checklist.

Note that that observers are responsible for their own personal safety during the survey. Neither the Forest Preserves of Cook County, the Chicago Park District, the Bird Conservation Network, nor any other entity or individual accepts any responsibility for observer safety. In an emergency, dial 911.

Survey Timing: Sunrise is the best time to perform the point counts, and every attempt should be made to conduct the surveys at or near sunrise. However, a survey may be run at any time before 9:30 AM if a sunrise survey is not possible. We recommend 1 visit per week for regular monitors, in April and May, and again from the last week in August to the end of October. We encourage visits by anyone who can identify migrating birds.

Before your field day assemble the following items:

- binoculars
- watch which indicates seconds
- waterproof boots

And one of the following:

- A voice recorder OR
- at least 2 pens and a field notebook
(with either of the two above you can take notes and enter them directly into eBird – just remember to record the time you start), OR
- sufficient blank data forms, clipboard, rubber bands (for holding forms on clipboard)

You may also need:

directions and maps, GPS unit & extra batteries, cell phone, field guide, water and snacks
hat, sunscreen, insect spray

On the Field Visit:

- Arrive with enough time to complete the points you have chosen to do before 9:30 AM.

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- Visit each point in succession. If possible start at a different point and/or go in a different direction on successive visits.
- At each point, do a point count survey first:
 - count all birds seen or heard within 50 meters of the point (LaBagh) or 25 meters of the point (Montrose) during a five-minute uninterrupted period, beginning as soon as you arrive at the point.
 - Count birds flushed within 50 m (LaBagh) or 25 m (Montrose) of the point as you approach as being at the point.
 - If you observe a flock in your count circle during the count, you may follow it for a short time (less than 5 minutes) after the count to determine its size and composition.
 - If a bird gives an unknown song or call during a count, you may attempt to track it down after the count for identification.
 - Do not re-count individual birds seen or heard at one point and then seen again at another point. For example, if a Cooper's Hawk is patrolling the area, you might see the bird at several points. Count it only once.
 - Birds that are flying over but not using the habitat on the study area are not counted. Birds flying below or at canopy level, flying from one perch to another, or actively foraging on or above the study area are recorded.
 - Do not use anything to attract birds or otherwise distort the count. You may pish or use other means to attract and identify unknown birds if you saw or heard them during the count, but not until after the count interval is over.
- At every other point, once the 5 minutes are done, stop the point count and begin the 5-minute foraging count.
 - Observe birds in the count circle until you see one that is actively searching for food (foraging) in a tree or shrub.
 - Note on the field form the species of bird and the vegetation type of the plant (see "Foraging Survey - Additional info" for classifications of vegetation types). If you know the plant species, note it as well. For LaBagh, also note the enclosure number..
 - Find a different bird and repeat the procedure.
 - You may walk around your count circle, but remain in the circle.
 - Continue for 5 minutes.
 - Record only the first foraging stop that you see for each bird.
 - See "Foraging Survey – additional info" below for more explanation.
- Note birds that you see while you are at the site, but that are not observed during any point count or foraging count, for inclusion on the daily checklist.
- If you cannot avoid being interrupted, you may stop the count timer and resume the time when the interruption has passed.
- If you cannot identify a bird as to species, identify it to the lowest taxonomic level possible and note it as such (e.g. woodpecker sp. or warbler sp.).

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- Record all point count and checklist data on the attached field form or use your own system for field notes and, in either case, enter the data into eBird within the week. Enter point count data as individual stationery counts, and checklist data as traveling count into the hotspot. Record foraging data on the attached field form.

Foraging Survey – additional info

The goal of the foraging survey is to determine if there are vegetation types that bird species spend more time foraging on than would be expected due to the abundance of a particular vegetation type within a plot. This will require the observer to collect data not only on the bird species present (and foraging), but also to collect information on the vegetation type a bird forages on or from. Unlike the point count, observers are encouraged to systematically travel throughout the point count area to locate foraging birds. Foraging surveys are conducted after the point count is completed and last for 5 minutes.

To conduct a foraging survey, slowly travel through the point count area (staying within its bounds) while searching for birds within the circle. If they are heard, move to where you can actually observe the individual. Once the bird is located and you note that it appears to be foraging, record the bird species and vegetation type which the bird was foraging from or on, and continue your search.

Guidelines for the foraging survey include:

- Only record the first vegetation type used by a bird species. If you observe an individual forage on a shrub and then a tree, you would only record that species to have foraged on a shrub.
- Only record the first individual of a given species during a foraging survey (unless more than one individual is clearly identified). For example, if two Blackburnian warblers were observed in one tree you could record two observations. Conversely, you would only record one observation if a Blackburnian warbler was observed at the start of a survey and then one was located later in the survey. This is done to ensure statistical independence of foraging observations. If the species is sexually dimorphic (e.g. common yellowthroat), then data can be recorded for the first male and first female individual of a given species during a foraging survey.
- The method of foraging used by a bird does not matter (e.g leaf gleaning, hawking flying insects, etc.).
- Only do half the points (Marked either A or B) according to the schedule below

The vegetation types for this survey include:

- Buckthorn
- Shrub (other than buckthorn): a small to medium-sized woody plant. It is distinguished from a tree by its multiple stems and shorter height, usually under 6 m (20 ft) tall.
- Canopy tree: a tree whose crown is part of the highest layer of vegetation in the forest

- Understory tree: any tree growing between the forest canopy and the forest floor

Finally, more specific data will be collected at least once per site to quantify the abundance of different vegetation types at a point count location. This will be done by survey organizers. They will count the total abundance of each vegetation type within a plot (e.g. number of shrubs, number of canopy trees, etc.) and estimate their percent cover within the plot. Because shrubs and other vegetation types may be below canopy trees, percent cover will be estimated separately (e.g. how much of the point count area is covered in shrubs).

In addition, survey organizers will pull weather data for each checklist if necessary.

Point Locations: The attached map shows the point count locations. Count locations were established to monitor each of the different habitats at the site and to provide a thorough, non-overlapping survey.

Points are marked by flagging tape at LaBagh, and numbers on posts at Montrose, and flagging denotes the outer limit of the point count circle. In addition, each enclosure at LaBagh is numbered for the foraging study. Descriptions of the point locations and GPS coordinates for the points are included on the attached point location table.

Points may be surveyed in any order. If it is not possible to survey all points on a given day, observers are encouraged to conduct partial surveys.

Checklist – additional info

Any birds noted at the site that are not included in the point count or foraging protocol should be listed on a separate sheet and entered into eBird as a traveling count. Answer “no” to the question “Are you reporting all the birds that you were able to identify?”

Data Submittal:

Enter point count and checklist data for each survey into eBird. Use the COS login which will contain all the points names as below.

eBird username: cos data (no caps)

PW: cos12345

You will find the point count locations under Submit Observations – Choose from Your Locations. Choose “Stationary” as the Observation Type.

To enter transect data, enter “Cook, Illinois” into “Find it on a Map”, zoom into your site and select the red flame (hotspot) and click the green “Continue” bar on the right. Choose “Traveling” as the Observation Type. On the next page where you select the species, above the submit button, you will

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see the question “Are you submitting a **complete checklist** of the birds you were able to identify?”
Answer “no”.

Please submit your electronic data as soon as possible after your survey, preferably within a week.
Your effort will be most valuable and we’ll have better data quality if you do.

Record foraging data on the field form. Data forms may be mailed to Judy Pollock, 411 Darrow Ave,
Evanston IL 60202 or scanned and sent to jpbobolink@gmail.com at the end of the season.

Rarities: If you think you have seen or heard a rare bird, do your best to document your sighting with
either a photograph or a recording. Make good notes about the sighting. Contact other observers to
verify your sighting if you think it is appropriate. For more information about documenting rare birds,
see the Illinois Ornithological Records Committee web page: <http://www.illinoisbirds.org/illinois-ornithological-records-committee/>

Resources

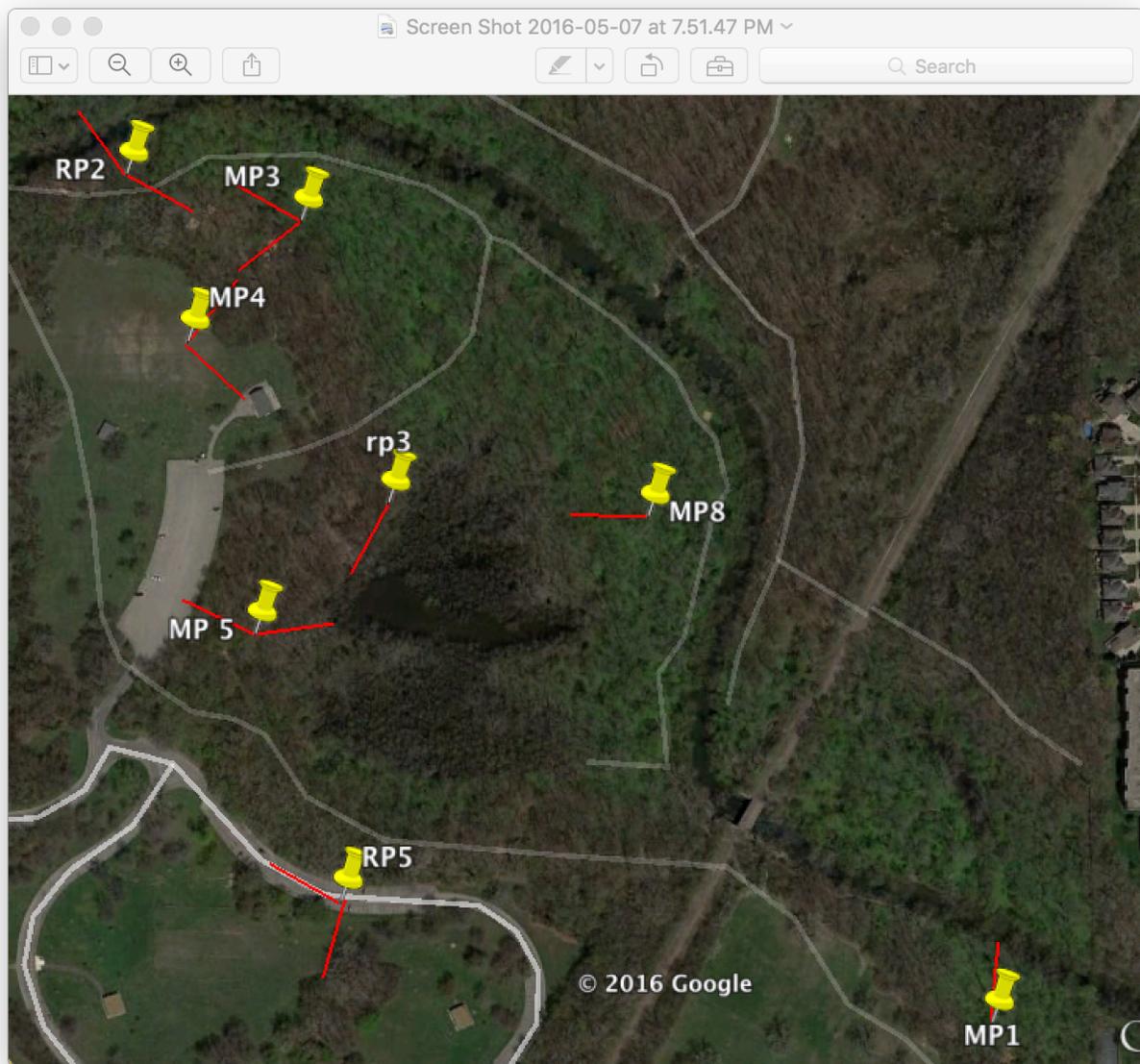
Song Learning:

- **Bird Song Ear Training Guide: Who Cooks for Poor Sam Peabody? Learn to Recognize the Songs of Birds from the Midwest and Northeast States.** John Feith. A favorite of many.
- **Birding by Ear: Eastern/Central (Peterson Field Guides) Audio CD.** Richard K. Walton and Robert W. Lawson. Edited by Roger Tory Peterson – This is a very good introduction to learning bird songs.
- **Stokes Field Guide to Bird Songs: Easter Region – Audio CD.** Donald and Lillian Stokes and Lang Elliot – This is a fairly complete set of songs with more variations than most collections.
- Phone apps from iBirdPro, Sibley, etc.
- Larkwire.com – Excellent program for song learning and for improving song recognition.

Point Count Location Map - LaBagh

2 edge points (1 restored one not), 3 mostly cleared areas, 2 mostly not cleared plus the ash die-off (natural opening that we are planting)

These points have a 50 meter radius



Point Count Location Map - Montrose

These points have a 25-meter radius



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Point Count Locations

Point	Latitude	Longitude	Point Description
A LaBagh – steep bank RP2	41.981766	-87.745718	Steep bank – path near big oak east of enclosures – red flagging on Linden
B LaBagh – Hawthorn MP3	41.98150	-87.74410	On burn scar near path below enclosures
A LaBagh – picnic edge MP4	41.981	-87.74523	Lawn north of picnic shelter and Cicero lot – halfway between small tree and lawn edge with view around corner. No flag
B LaBagh – slough slope RP3	41.980159	-87.743437	NE of dance platform – near path along west end of slough – large downed tree on one side and its trunk on the other, flag on buckthorn about 20' from trail
A LaBagh – Slope MP5	41.979329	-87.744362	Downslope from Cicero lot – in winter 2016 clearing - just below upper trail near dead ash and cut stump overlooking burn scar – red flagging on stump
B LaBagh – lot RP5	41.977728	-87.743886	Edge of lot near Magic Tree where path goes into woods
A LaBagh – ash opening - MP8	41.979367	-87.741663	Ash die-off area east of slough – where trail goes through “buckthorn fence” enclosure – north end – red flagging on buckthorn fence
B LaBagh Hernandez River East-- MP1	41.97686	-87.73891	East of “shower head’ and halfway upslope near spring ‘15 peanuts
A Montrose 1	41.962935	-87.634373	Magic Clump – point on NE side – step away from clump into grass off trail a bit for view of both sides. Red flagging on fence post near two shaggy-barked trees in clump
B Montrose 2	41.963534	-87.634035	Magic Hedge – north end. Lawn side – lone multi-stemmed tree; shrub caged in black fence in hedge. Red flagging on fencepost
A Montrose 3	41.963730	-87.635011	Butterfly Meadow – in lawn on a line parallel to fence and even with 4 small trees with spreading crowns near road, in denser grass SW of thin patch with manhole covers. No flagging
B Montrose 4	41.963381	-87.632850	Where trails meet in north thicket – 2 paths cross at 5-stemmed tree across trail from river birch area (trees with peeling bark). Red flagging on tree.
A Montrose 5	41.963031	-87.633441	North end of water feature – near large flat rock at end of trail; red flagging on fencepost

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B Montrose 6	41.962637	-87.633831	Middle of plum grove (down path across from prairie) halfway around low clump (re flagging on branch)
A Montrose 7	41.962597	-87.633132	Middle of path between sumac and aspen – near ash (flagging)
B Montrose 8	41.963169	-87.631698	North end of revetment prairie – path toward opposite fence near start of rope fence – take right fork and stop opposite tower, flagging on dead vegetation

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Monitoring Schedule – LaBagh

Monday – Judy - A

Tuesday – Luis - A

Wednesday – Katy - B

Thursday – Bill and Charlie – B

Monitoring Schedule –

No specific day – CJ – A

No specific day – Vicky – B

No Specific day – Aerin - A

Wednesday – Judy – A