

**Lincoln Land Community College Bird Banding Station (LLCC BBS)**  
**Lincoln Land Community College, Springfield, IL**  
**(Coordinates: 394-0893)**

**Report and Results, Spring 2016**

**Lincoln Land Association of Bird Banders**  
**Vernon Kleen, Bander/Coordinator**  
**Federal Permit # 08355**

The Lincoln Land Community College bird banding station (LLCC BBS), initiated in September, 2012, began operations of its eighth migratory season and fourth spring season on Monday, 21 March 2016. The site was the same as the seven previous seasons, primarily the northern edge of the LLCC property (just north of the baseball and soccer fields and east of the campus lake) and the southwestern edge of City Water, Light and Power property. The purposes established for the station are to use bird banding as a tool to: a) document, quantify and monitor bird populations that permanently live in or visit the site during the spring and fall migratory seasons, and b) provide educational opportunities for students, staff and others interested in learning more about birds and their environments. Objectives include: 1) documenting, quantifying and monitoring the seasonal bird populations; 2) comparing seasonal results to those of past years and to similar projects or studies at other Illinois or national sites; 3) publishing project results; and 4) providing “hands-on” experiences to students, staff and others who visit the station.

As in past seasons, mist nets were used to capture birds from near sunrise to about 11:00 a.m. on days without rain, strong winds, or below freezing temperatures. This spring, from 11 to 28 mist nets were used on 56 mornings (nearly all weekdays and most Saturdays) from 21 March through 27 May, with 5162 net hours of operation. [One net hour is the use of one standard, 12-meter x 2-meter mist net for one hour during daylight hours.] The habitats in which nets were placed consisted of the same four components (and, in most cases, the same locations) as in previous seasons; i.e., a) an older, regenerated, deciduous woods with a thick honeysuckle understory and a slightly-sloped ravine with a narrow, shallow stream that flows from the campus lake (below the dam) to Lake Springfield (off campus) – 11 nets; b) a woodland edge next to a crop field or mowed grassy lane – 6 nets; c) a small, managed prairie – 3 nets; and d) an area in the vicinity of a group of bird feeders close to the lake – 8 nets. To capture birds, net “lanes” were established and the nets were stretched between two 10’ aluminum poles (½” ENT conduit) placed vertically in the ground. The nets were then “unfurled” (usually before sunrise) and “furled” at the end of the daily banding session (to prevent the accidental capture of any birds when not in operation). The Bander’s Code of Ethics – as developed and promoted by the North American Bird Banding Council (2001) – was the standard for banding operations. Station and banding protocols were also utilized as a formal part of the banding operations—these protocols included proper training of persons to extract birds from the nets, the careful handling, processing and releasing of the birds, and approved photography.

The 2016 spring season was cool, damp and windy and, like last year, migrant birds were slow to arrive and quick to depart. Several expected species were neither caught nor seen this spring. Early morning temperatures in late March ranged from the low 30’s to upper 50’s and by mid-day had climbed to the mid-40’s to low 60’s. In April the range was from an early morning low of 28 degrees (9 April) to 68 (26 April) to mid-day highs up to 81 degrees (15 April). In May, morning lows started in the lower 40’s and by mid-day had reached highs in the low 80’s. The capture of birds this year was definitely less than it could have been because of 1) fairly strong to extremely strong winds on 12 days and moderate winds on another 29 days; 2) drizzles, rain or thunderstorms on 9 more days forcing the cancellation or early shut down of station operations; and 3) the annual spring burn of at least half of the prairie habitat (which is usually the best habitat for several species, especially goldfinches and unusual sparrows). Although the nets within the woodlands were responsible for capturing several species not caught in other habitats, only five of the eleven nets there could be considered consistently productive. Two of the three prairie nets, all eight of the feeder-area nets and five of the six edge nets were excellent for capturing birds.

The final tally of this spring’s operations was 1858 birds (**a new spring high**) of 79 species banded on **56** days of operations with an average of **33.2** birds per banding day and **0.36** birds per net hour (see **TABLE 1** for comparisons to 2014 and 2015). The big boost in total birds banded was the result of the season’s 494 juncos (100 of which came on a single day and 300+ more than a previous spring season high). The 79 species banded was the station’s second best spring season -- 3 short of the 82 banded in 2014 but 4 more than last year. For the record, at least four more known

species (Mallard, Blue-winged Teal, Cooper’s Hawk and Winter Wren) were in the nets but escaped prior to anyone retrieving them. Other species missed altogether this spring were the Eastern Wood-Pewee and Yellow-bellied Flycatcher, all the vireos (except for two White-eyed), the Blue-gray Gnatcatcher, at least seven species of warblers (probably more), and American Tree Sparrow. In addition to the birds banded, another 198 were captured as **“returns”** [birds banded 90 or more days earlier--some of which were banded in the fall of 2012—the first season of operation] and 788 **“repeats”** [birds recaptured within 90 days of the banding date; several of these were captured two to six times].

This spring was a good to record season for several groupings of birds, especially kinglets, thrushes, mimids, common warblers, blackbirds and some sparrows, but a very poor season for the flycatchers, vireos, most warblers and the early sparrows. New species banded at the station this spring were **Prairie Warbler** and **Dickcissel** -- bringing the station total to 115. Other **noteworthy captures** included Sharp-shinned Hawk (2), Yellow-bellied Sapsucker, Eastern Kingbird (2 – one of which was the return of the bird banded in 2014), White-eyed Vireo (a pair), Blackpoll Warbler (an adult male), Louisiana Waterthrush, Yellow-breasted Chat (2), Le Conte’s Sparrow, Savannah Sparrow (2) and Orchard Oriole (2). Species for which **new seasonal highs** were established included: Red-headed Woodpecker (3), White-eyed Vireo (2), House Wren (35), Veery (11), Gray-cheeked Thrush (24), Swainson’s Thrush (84), Gray Catbird (88), Brown Thrasher (23), European Starling (7), Palm Warbler (20), Northern Waterthrush (51), Common Yellowthroat (41), Yellow-breasted Chat (2), Lincoln’s Sparrow (27), White-throated Sparrow (128), Slate-colored Junco (494), Brown-headed Cowbird (31) and Orchard Oriole (2). There were also six species that tied for the highest seasonal totals and another twelve that achieved new high totals for a “spring” season (see the APPENDIX for the complete list of species captured this spring, the number of each banded, and the new high totals). As always, an occasional casualty occurs; fortunately, the number of casualties is always extremely low and the station continued its great record for bird safety. Of the three known casualties this spring, 1 was killed directly by deer attempting to eat it (personal observation) and a Cooper’s Hawk was responsible for another. The station was also the benefactor of specimens from LLCC staff and visitors (window casualties) for identification and donation to the State Museum

During the season it’s expected that there will be one or more days when 100 or more birds can be banded. In 2014 there were two such days, in 2015, none, and in 2016 one (127 banded on 4 April—100 of which were the juncos). The highest one-day spring total is still 139 (5 May 2014). In contrast, the fewest birds banded on any day until the last three days of the 2016 season was 11 (on those last three days there was a combined total of only 13 birds banded--none of which were banded on the last day). During the spring seasons of 2014 and 2015 there were five or fewer birds banded on 10 days and 2 days, respectively.

Table 1 presents the 2016 Spring statistics and compares them with those of the two previous spring seasons.

<b>TABLE 1</b>	Spring 2014	Spring 2015	Spring 2016
<b>Spring Comparisons</b>			
First banding Date	23 Mar.	24 Mar.	21 Mar.
Last banding Date	24 May	25 May	27 May
Number of Banding Days	47	49	<b>56</b>
Total Birds Banded	1391	1065	<b>1858</b>
<i>(Total Birds banded less juncos)</i>	<i>(1214)</i>	<i>(902)</i>	<i>(1364)</i>
Average number of Birds per day	29.6	21.7	<b>33.2</b>
Highest one-day banding total	139	71	127
Date of highest total	5 May	4 May	4 Apr.
Number of days with 100+ birds banded	2	0	1
Total species banded	82	75	79
Number of Net Hours	4182	4781	<b>5162</b>
Number of banded birds per Net Hour	0.33	0.22	<b>0.36</b>
Returns of Banded Bird*	213	193	198
<b>Repeats of Banded Birds**</b>	<b>464</b>	<b>416</b>	<b>788</b>

\*Returns: Birds banded at the site 90 or more days earlier (beginning in the fall of 2012).

\*\*Repeats: birds captured within 90 days of original banding or previous capture.

**Bold = new spring record**

Table 2 identifies a) the 10 most commonly banded species this spring and compares them with the totals of the two previous spring seasons; and b) the species that are typically in the top 10 (in approximate descending order) at most other eastern and midwestern spring banding stations. Six of the “typical” top 10 were not represented at all in the LLCC BBS results this spring (last year that number was also six). The American Goldfinch is often the most commonly banded species; however, this year, because of the change in prairie habitat, the numbers were way down and it ranked

as the 12<sup>th</sup> most common species this spring. In contrast to the most common birds, 15 species were represented by a single individual this spring (compared to 14 & 17 for 2014 and 2013, respectively), and another 10 by just two birds. The four new species added to the spring list of bandings included the two new species (Prairie Warbler and Dickcissel) plus the Yellow-bellied Sapsucker and Le Conte's Sparrow.

**TABLE 2**

**The 10 most commonly banded species**

**Species typically in the top 10  
(all spring years combined)**

	<u>2014</u>	<u>2015</u>	<u>2016</u>	
Dark-eyed Junco	169	284	<b>494</b>	White-throated Sparrow
White-throated Sparrow	92	96	<b>128</b>	American Robin
Swamp Sparrow	98	89	<b>91</b>	Gray Catbird
Gray Catbird	46*	34*	<b>88</b>	Indigo Bunting
White-crowned Sparrow	91	23*	87	Swamp Sparrow
Swainson's Thrush	31*	61	<b>79</b>	American Goldfinch
Common Grackle	30*	59	59	Hermit Thrush
Yellow-rumped (Myrtle) Warbler	28*	39	<b>55</b>	Common Grackle
Northern Waterthrush	40*	24*	<b>51</b>	Nashville Warbler
Song Sparrow	56	28	47	Tennessee Warbler

\*Not in the Top 10 these years

An interesting aspect of each report is to compare the current season results with those of past seasons. Was this a typical year, or a year above or below par? As previously noted, the 2016 spring season was a very good year for certain groups of birds and a very poor year for others. TABLE 3 provides several comparisons. Note the record number of kinglets, thrushes, mimids, four species of warblers and three sparrows. However, note the low numbers of goldfinches and "all" flycatchers, vireos and most warblers.

**TABLE 3**

**Spring Season Captures for Selected Species**

	<u>2014</u>	<u>2015</u>	<u>2016</u>		<u>2014</u>	<u>2015</u>	<u>2016</u>
Ruby-throated Hummingbird	2	0	1	Common Yellowthroat	26	24	41
Red-headed Woodpecker	2	0	3	<b>"all other warblers"</b>	<b>29</b>	<b>8</b>	<b>14</b>
<b>"all" flycatchers (except phoebe)</b>	<b>9</b>	<b>4</b>	<b>5</b>	Chipping Sparrow	23	33	14
<b>"all" vireos</b>	<b>6</b>	<b>3</b>	<b>2</b>	Field Sparrow	18	7	26
Golden-crowned Kinglet	0	2	14	Song Sparrow	56	28	47
Ruby-crowned Kinglet	8	10	22	Lincoln's Sparrow	18	7	27
Veery	4	4	11	Swamp Sparrow	98	89	97
Gray-cheeked Thrush	13	22	24	White-throated Sparrow	101	41	128
Swainson's Thrush	61	47	84	White-crowned Sparrow	91	23	87
Hermit Thrush	16	11	4	Rose-breasted Grosbeak	5	0	4
American Robin	24	35	36	Indigo Bunting	11	2	7
Gray Catbird	46	34	88	Baltimore Oriole	0	0	4
Brown Thrasher	11	12	23	Red-winged Blackbird	31	51	30
Tennessee Warbler	21	4	6	Common Grackle	30	59	59
Nashville Warbler	23	3	8	Brown-headed Cowbird	9	13	31
Magnolia Warbler	5	6	4	House Finch	57	39	18
Yellow-r (Myrtle) Warbler	28	39	55	American Goldfinch	106	69	42
Palm Warbler	15	2	20	House Sparrow	25	6	27
American Redstart	12	4	4				
Ovenbird	17	8	11				
Northern Waterthrush	40	24	51				

Another important aspect of the banding operations is to capture birds that have been banded in past seasons. As referenced earlier, there were 198 birds captured as returns this spring (birds banded at least 90 days earlier). TABLE 4 identifies how many and just how far back some of those birds were banded.

**TABLE 4**

Returns from past seasons

	<u>Fall</u> <u>2012</u>	<u>Sprg</u> <u>2013</u>	<u>Fall</u> <u>2013</u>	<u>Sprg</u> <u>2014</u>	<u>Fall</u> <u>2014</u>	<u>Sprg</u> <u>2015</u>	<u>Fall</u> <u>2015</u>
Red-bellied Woodpecker		1	2	1			1
Downy Woodpecker		2			2	1	7
Hairy Woodpecker							<u>2</u>
Northern Flicker						1	1
Eastern Kingbird				1			
Blue Jay					1	1	<u>7</u>
Black-capped Chickadee	2*		1	3		1	7
Tufted Titmouse					1	4	
White-breasted Nuthatch						1	<u>3</u>
Carolina Wren							1
House Wren			1				
Eastern Bluebird						1	
American Robin						3	
Gray Catbird						2	1
Song Sparrow		1	1		2	1	
Slate-colored Junco			2	2	6	2	6
Northern Cardinal	1		2	3	1	3	6
Red-winged Blackbird						2	
Common Grackle		2		4		5	
Brown-headed Cowbird		1		5		3	
House Finch	1				3	2	<u>2</u>
American Goldfinch			1			2	2
House Sparrow			1		4		9

\*caught every year multiple times

In addition to the mist net operations, the blackbird “decoy” trap (established in the spring of 2014) was independently operated again this spring. This walk-in trap measures 8’ x 16’ x 5/5’ and is located in a remote corner of the LLCC campus but near the three outlying “edge” nets. The trap was in operation for about 15 days and captured 28 grackles, 3 Blue Jays and one cardinal. As anticipated some of the birds were captured multiple times and one was a return from the 2014 banding season.

The four issues affecting banding operations (and, in some cases, the potential number of nets used each day) were wind, rain, people and deer. Very little could be done about the wind and rain except to furl nets that had been opened. As for people, there were three types: full classrooms, periodic wanderers, and those with dogs. The classroom groups and periodic wanderers didn’t usually affect banding operations unless they lingered for extended periods or staged as a group in close proximity to active nets – especially those close to the lake. Then there were two categories of people with dogs: 1) those whose dogs were either on leashes or trained not to stray and 2) those who permitted their dogs to run freely. The latter has caused problems with dogs running through and destroying nets; however, this was not a serious problem this spring. Then there were the deer (and more deer). The only hope remains that they learn where the nets are when furled (and readily visible) and avoid them when unfurled (not visible) – which in many observed situations they did (avoid the nets). On two occasions I witnessed deer run through nets leaving gaping holes. Several other nets were similarly affected by deer. When the deer are caught off-guard (which they sometimes are), they disperse quickly and a net in their departure path doesn’t stop them. The deer in the area of the banding station are so tame, they don’t even flee when you try to chase them away. And, this year, on our last day of operations, three fawns (photos available) were found lying (as inconspicuous as they could) on the ground just off our pathways through the woods within ten feet of active nets.

The recently completed LLCC BBS banding building-facility was a most welcome addition to the banding operations this spring, especially on the cooler, windy and damp days. It is now fully functional, perfect for our operations and convenient as a “garage” for the station’s “bird mobile” (ATV). The ribbon-cutting ceremony on 22 March was a well-attended celebration and a wonderful opening for the spring banding season. The efforts of everyone who helped complete the facility and participate in the ribbon-cutting ceremony are very much appreciated.

Acknowledgments: Finally, many thanks to everyone who volunteered time at and visited the LLCC banding station. Special thanks to a) Lincoln Land Community College for permitting the project to continue (in particular Dr. Charlotte Warren, Dr. Eileen Tepatti, Bill Bade, Dave Bretscher and Steve Handy); b) Anthony Rothering (LLCC Biology Faculty) for near-daily assistance in all aspects of the project from beginning to end; c) many regular assistants (especially Paul Biggers, Jim Mordacq, Joe Gardner, Susan Shaw, Ron Moorman, Libby Errickson, Tyler Beckerman, Nancy Redman, Lizzie Roehrs, Mel Breyer, Stevie Emmons, Kelsey Thornton, and Mike Kennedy); d) students and staff of the LLCC Work Force Careers Center and other LLCC staff for completing the construction of the “banding facility”; e) all who donated wish-list items for the new facility and station; f) Paul Biggers and Anthony Rothering for reviewing and providing pertinent comments on the draft of this report, and g) everyone else who helped and/or visited the station (including 79+ LLCC classroom students, at least 4 LLCC classes, 3 UIS grad students and other visitors) any time during the season. Thanks, too, to everyone who provided financial support, especially to The Rotary Club of Springfield South for the large grant and Nancy Redman for unique Phillips 66 grants.

The LLCC BBS is scheduled to be in operation next fall from about 22 August through 18 November. See you then.

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## APPENDIX: 2016 Spring Banding Summary

### Bold Face = New Station Species (2)

\*\* new seasonal high total (21 species)

\* new spring season high total (12 species)

T ties high total all seasons (6 species)

t ties spring season high total (4 species)

Sharp-shinned Hawk	2*T
Mourning Dove	3
Ruby-throated Hummingbird	1
Red-headed Woodpecker	3**
<u>Red-bellied Woodpecker</u>	9
Yellow-bellied Sapsucker	1 T
Downy Woodpecker	6
Hairy Woodpecker	2*
Northern Flicker	4
<u>Traill's Flycatcher</u>	1
Least Flycatcher	2
Eastern Phoebe	11*
Great Crested Flycatcher	1 t
Eastern Kingbird	1 T
<u>White-eyed Vireo</u>	2**
Blue Jay	19*
Tree Swallow	2**
Black-capped Chickadee	8
Tufted Titmouse	8*
<u>White-breasted Nuthatch</u>	3*
Brown Creeper	5*
Carolina Wren	5 t
House Wren	35**
Golden-crowned Kinglet	14*
<u>Ruby-crowned Kinglet</u>	22 t
Eastern Bluebird	1
Veery	11**
Gray-cheeked Thrush	24**
Swainson's Thrush	84**
<u>Hermit Thrush</u>	4
Wood Thrush	3
American Robin	36
Gray Catbird	88**
Brown Thrasher	23**
<u>European Starling</u>	7**
Blue-winged Warbler	2
Tennessee Warbler	6
Orange-crowned Warbler	1
Nashville Warbler	8
<u>Yellow Warbler</u>	1
Magnolia Warbler	4
Yellow-rumped Warbler	55*
<b>Prairie Warbler</b>	1**
Palm Warbler	20**
<u>Yellow Palm Warbler (1)</u>	
Blackpoll Warbler	1
American Redstart	4
Ovenbird	11
Northern Waterthrush	51**
<u>Louisiana Waterthrush</u>	1 T
Kentucky Warbler	1
Common Yellowthroat	41**
Wilson's Warbler	3
Canada Warbler	3*
<u>Yellow-breasted Chat</u>	2**

Eastern Towhee	3 t
Chipping Sparrow	14
Field Sparrow	26*
Savannah Sparrow	2
<u>Le Conte's Sparrow</u>	1*T
Fox Sparrow	1
Song Sparrow	47
Lincoln's Sparrow	27**
Swamp Sparrow	91
<u>White-throated Sparrow</u>	128**
White-crowned Sparrow	87
Dark-eyed Junco	494**
Northern Cardinal	43*
Rose-breasted Grosbeak	4
<u>Indigo Bunting</u>	7
<b>Dickcissel</b>	1**
Red-winged Blackbird	30
Common Grackle	59 T
Brown-headed Cowbird	31**
<u>Orchard Oriole</u>	2**
Baltimore Oriole	4
House Finch	18
Pine Siskin	2
American Goldfinch	42
<u>House Sparrow</u>	27
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Total Birds Banded	1858
Total Species Banded	79

