

# Lincoln Land Community College Bird Banding Station (LLCC BBS)

## Lincoln Land Community College, Springfield, IL

(Coordinates: 394-0893)

### Report and Results, Spring 2018

**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 twelfth migratory season and sixth spring season on Monday, 19 March 2018. The site was the same as the eleven 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 very cold temperatures. This spring, from 15½ to 28 mist nets were used on 52 mornings (practically all weekdays and most Saturdays) from 19 March through 26 May with 5115 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 five 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) – 9½ nets; b) a narrow woodland edge next to a bare field -- 3 nets; c) a mowed grassy lane – 3½ nets; d) a small, managed prairie – 4 nets; and e) 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 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. Table 1 presents the 2018 Spring statistics and compares them with those of the four previous spring seasons.

<b><u>TABLE 1</u></b>	Spring	Spring	Spring	Spring	Spring
<b><u>Spring Comparisons</u></b>	<b><u>2014</u></b>	<b><u>2015</u></b>	<b><u>2016</u></b>	<b><u>2017</u></b>	<b><u>2018</u></b>
First banding Date	03/23	03/24	03/21	03/20	03/19
Last banding Date	05/24	05/25	05/27	05/26	05/26
Number of Banding Days	47	49	56	50	52
Total species banded	82	75	79	76	87
Total Birds Banded	1391	1065	1858	1106	1687
<i>(Total Birds banded less juncos)</i>	<i>(1214)</i>	<i>(902)</i>	<i>(1364)</i>	<i>(947)</i>	<i>(1452)</i>
Average number of Birds per day	29.6	21.7	33.2	22.1	32.4
Highest one-day banding total	139	71	127	57	125
Date of highest total	05/05	05/04	04/04	03/31	05/01
Number of days with 100+ birds banded	2	0	1	0	2
Number of Net Hours	4182	4781	5162	3950 <sup>^</sup>	5115 <sup>^</sup>
Number of banded birds per Net Hour	0.33	0.22	0.36	0.28	0.33
Returns of Banded Bird*	213	193	198	123	146
Repeats of Banded Birds**	464	416	788	348	525
<b>Total Birds Captured * **</b>	<b>2068</b>	<b>1674</b>	<b>2844</b>	<b>1577</b>	<b>2358</b>

<sup>^</sup> 10% reduction in net hours beginning in 2014 due to deer-damaged holes/tears in the nets;

\*Returns: Birds banded at the site 90 or more days earlier

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

This spring there were two days in which 100 or more birds were banded -- the highest number, 125, occurred on 1 May; the highest number for any spring day is 139 (set back in May, 2014) and for any day, 241 (set in Oct. 2016). In contrast, there were two days (the last two days of the season) in which five or fewer birds were banded – that was similar to the 3, 2, 2 & 2 days from the springs of 2014 to 2017, respectively. **The 87 species banded this spring established a new season high (by 5 five species);** the totals for the springs of 2014 through 2017 were 82, 75, 79, & 76, respectively. The 2018 species count could easily have reached or exceeded 90 had we captured three or more of the following species that were present in the area: Cooper’s Hawk, Yellow-billed Cuckoo, Yellow-bellied Sapsucker, Hairy Woodpecker, Yellow-bellied Flycatcher, any of four more vireos, Barn Swallow, Blue-gray Gnatcatcher, Cedar Waxwing, several more warbler species, the three grassland sparrows, Blue Grosbeak or Purple Finch (perhaps even a Eurasian Tree Sparrow). The final tally of birds banded was 1687 (the second-best for a spring season – and just 171 birds short of the 2016 record). At least two known species (Cooper’s Hawk and Mallard) hit nets and escaped prior to capture (in both cases brought the nets down to the ground). Three new species were added to the station total this spring: **Black-billed Cuckoo, Scarlet Tanager and Vesper Sparrow** (bringing the station total to 122). Other seasonal highlights included exceptional numbers (compared to past years) for Traill’s Flycatchers, both kinglets, Gray-cheeked and Swainson’s thrushes, five species of warblers, three species of sparrows, Rose-breasted Grosbeak, Indigo Buntings and Baltimore Orioles – see TABLE 2 for comparative numbers with the four-year average and range of annual spring captures for 2014- 2017. TABLE 2 also provides similar numbers for species where lower than expected numbers were captured and compares them with the four-year average and range; had the four-year average for just the five species of native sparrows (which includes the junco) and the two finches shown in TABLE 2 been captured this spring, that would have added 188 more birds to the banding total (which would have been a new spring season high). Overall, there were new seasonal highs established for 16 species and ties for another 5; and new spring highs for 19 species and ties for 2.

**TABLE 2 – Spring Data**

<u>Notable Increases</u>	<u>2018</u>	<u>4-year (2014 – 2017)</u>		<u>Low Numbers</u>	<u>2018</u>	<u>4-year (2014 – 2017)</u>	
		<u>Average</u>	<u>Range</u>			<u>Average</u>	<u>Range</u>
Traill’s Flycatcher	<b>12**</b>	2.25	1 to 5	Orange-crowned Warbler	1	2.25	1 to 5
Golden-crowned Kinglet	<b>48**</b>	7.25	0 to 14	Lincoln’s Sparrow	10	17.25	7 to 27
Ruby-crowned Kinglet	<b>65*</b>	12.0	8 to 22	Swamp Sparrow	48	101.25	89 to 117
Gray-cheeked Thrush	<b>26**</b>	18.0	13 to 24	White-throated Sparrow	47	96.25	41 to 128
Swainson’s Thrush	<b>138**</b>	49.0	31 to 84	White-crowned Sparrow	17	57.25	23 to 91
American Robin	<b>65*</b>	35.5	28 to 43	“Slate-colored” Junco	235	248.0	159 to 494
Yellow Warbler	<b>17**</b>	1.0	0 to 2	House Finch	13	31.75	13 to 57
Palm Warbler	<b>52**</b>	12.5	2 to 20	American Goldfinch	50	57.0	11 to 106
Common Yellowthroat	<b>51*</b>	30.75	24 to 41				
Wilson’s Warbler	<b>10**</b>	3.75	1 to 4				
Canada Warbler	<b>6**</b>	1.5	0 to 3				
Field Sparrow	<b>28**</b>	18.0	7 to 26				
Fox Sparrow	<b>14*</b>	4.25	1 to 8				
Song Sparrow	<b>59*</b>	41.75	28 to 56				
Rose-breasted Grosbeak	<b>25**</b>	3.0	0 to 5				
Indigo Bunting	<b>21**</b>	8.0	2 to 11				
Baltimore Oriole	<b>9**</b>	1.5	0 to 4				

\*\* new station high total; \* new Spring high total

The low number of sparrows (including juncos) and finches this spring cannot be fully explained; however, the prairie did not seem to attract birds as usual and the feeders, even though well-maintained, weren’t as much of an attractant as usual. Looking at the sparrow and finch numbers, in all cases the total number banded this spring was less than half of the largest number banded in a spring season within the past four-year time span. Although the nets in the woodlands were responsible for capturing several species not caught in other habitats, only three of the 9½ were consistently productive. The prairie nets were a disappointment this year (based on their production in years past); however, all eight of the feeder-area nets and four of the 6½ edge nets produced well this year. There were two significant time periods when defined southerly warm-fronts triggered a mass movement of migrants (even visible on radar); the first occurred from 1-3 May and the second around 10-12 May; it was on 1 & 2 May that more than 100 birds and 25 species were banded each day. The complete list of species captured this spring and the number of each banded (including new and tied records) is provided in the APPENDIX.

The average of 32.4 birds per day this spring was surpassed only by the 33.2 of 2016. Although we did not have any seriously “shortened” days this year, fewer nets were used on days that were threatened by rain (in order to be able to

**TABLE 3 Spring Data Comparisons****The 10 most commonly banded species**

	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Dark-eyed (Slate-colored) Junco	177	<b>162</b>	494	<b>159</b>	235
Swainson's Thrush	61	47	84	34	<b>138**</b>
Yellow-rump (Myrtle) Warbler	107	84	120	66	72
American Robin	23	35	36	28	<b>65**</b>
<u>Ruby-crowned Kinglet</u>	8*	10*	22*	8*	<b>65**</b>
Song Sparrow	56	28	47	36	59
Western Palm Warbler	15*	2*	20*	13*	52
Common Yellowthroat	26*	24*	41	32	51
American Goldfinch	106	<b>69</b>	<b>42</b>	11	50
Golden-crowned Kinglet	0*	2*	14*	13*	48
Swamp Sparrow	98	89	91	117	48

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

White-throated Sparrow  
 American Robin  
 Gray Catbird  
 Indigo Bunting  
 Swamp Sparrow  
 American Goldfinch  
 Hermit Thrush  
 Common Grackle  
 Nashville Warbler  
 Tennessee Warbler

\* Not in the Top 10 these years

\*\* New Spring Season high

furl them quickly, if necessary). On these latter days both the number of net hours and number of potential captures were naturally lower. This year we logged 52 banding days (four fewer than the record of 56 in 2016) and 5115 net hours (47 fewer than the 5162 of 2016). The net hour figures (since 2014) included a 10% reduction for the “too many” large, deer-caused holes in and other damage to the nets (unrepairable holes) – reducing the potential for capturing birds.

Table 3 identifies a) the 10 most commonly banded species this spring and compares them with the totals of the four previous spring seasons, and b) species that are typically in the top 10 (in approximate descending order) at most other eastern and midwestern spring banding stations. Only three of the “typical” top 10 were represented at the LLCC BBS this spring. In contrast to the most common birds, 16 species were represented by a single individual this spring and another four by just two birds. In addition to the new species and several new high totals, other interesting captures included a Sharp-shinned Hawk, Belted Kingfisher, Red-headed Woodpecker, two Eastern Kingbirds (one a return from 2014), Northern Rough-winged Swallow, a return Red-breasted Nuthatch, two Marsh Wrens, Prairie Warbler, Yellow-breasted Chat and Savannah Sparrow. The most likely “non-captures” were identified above. In terms of species groups banded, there were 7 woodpeckers of 4 species, 40 flycatchers of 6 species, 5 vireos of 2 species, 46 wrens of 4 species, 256 thrushes of 7 species, 280 warblers of 17 species and 494 sparrows of 13 species. Unfortunately, an occasional casualty occurs; however, the number of “normal” casualties continued to be extremely low. Of the sixteen this spring (the highest seasonal total ever), eleven were killed directly by the “tame” campus deer attempting to eat them while still in the nets (personal observation—multiple observers); a hawk was responsible for another. As usual, the station continued to be the benefactor of several specimens from LLCC staff and visitors (primarily window casualties) for identification and donation to the State Museum.

Another important aspect of the banding program is the capture of birds that have been banded in season's past. This spring, 146 were captured as **returns** [birds banded 90 or more days earlier]; two of these had been banded in the fall of 2012 and seven in 2013. Another 525 birds were captured as **“repeats”** [birds caught within 90 days of banding or a recapture date]—several of these were caught multiple times (some as many as eight times during the season). **TABLE 4** identifies the returns and the year they were banded. Those indicated in **blue are birds that had migrated away from the banding station and then returned.**

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 or, at dawn, elect not to open them at all. As for visiting people, there are four types: full classrooms, interested students (some earning extra classroom credits), periodic wanderers, and those with dogs. The classroom groups, students and periodic wanderers don't usually affect banding operations unless they linger for extended periods or stage as a group in close proximity to active nets – especially the nets close to the campus lake. Then there are two categories of people with dogs: 1) those whose dogs are either on leashes or trained not to stray and 2) those who permit their dogs to run freely. Fortunately none of the nets were damaged by running dogs this spring. Then there are the deer (and more deer). The only hope remains that the deer learn where the nets are when furled (and readily visible) and avoid them when

**TABLE 4**

	<u>Returns from past seasons</u>						
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>Total</u>
Mourning Dove					1		<b>1</b>
Ruby-throated Hummingbird						1	<b>1</b>
Red-bellied Woodpecker					2	1	<b>3</b>
Downy Woodpecker		1			3	3	<b>7</b>
Yellow-shafted Flicker				1			<b>1</b>
Eastern Kingbird			1				<b>1</b>
Blue Jay			2		1	5	<b>8</b>
Black-capped Chickadee	1		2	3	7	8	<b>20</b>
Tufted Titmouse				1	3	3	<b>7</b>
Red-breasted Nuthatch						1	<b>1</b>
White-breasted Nuthatch				1		1	<b>2</b>
Carolina Wren						1	<b>1</b>
House Wren						1	<b>1</b>
Eastern Bluebird				1			<b>1</b>
American Robin		1		1		1	<b>3</b>
Gray Catbird				2			<b>2</b>
Brown Thrasher					1	1	<b>2</b>
Common Yellowthroat					1	1	<b>2</b>
American Tree Sparrow				1			<b>1</b>
Chipping Sparrow						1	<b>1</b>
Song Sparrow						2	<b>2</b>
Slate-colored Junco					5	17	<b>22</b>
Northern Cardinal	1	2	1	2	1	8	<b>15</b>
Red-winged Blackbird		1			1	1	<b>3</b>
Common Grackle					1		<b>1</b>
Brown-headed Cowbird					1	1	<b>2</b>
House Finch		1		2	2	12	<b>17</b>
American Goldfinch				1	2	4	<b>7</b>
House Sparrow		1	1	2	3	4	<b>11</b>

**Total: 146****TABLE 5****Volunteer Support**

<u>No. of Days</u>	<u>No. of Volunteers</u>
40+ days	2
15-20 days	4
9-14 days	4
5-8 days	4
<u>1-4 days</u>	<u>10</u>
	24

**Number of Person days: 252**

unfurled (not visible). Deer were definitely responsible for the complete destruction/loss of nets and for large, gaping holes in others. When the deer are caught off-guard (which they sometimes are), or are in pursuit of other deer, they disperse quickly--and a net in their departure path does not stop them. The deer in the area of the banding station are so tame, they don't even flee when someone actively tries to chase them away. On at least three occasions a deer was observed using its nose to lift up the bottom trammel of the net and slither underneath before scampering away; however, on "too many" occasions the deer were observed running through the nets.

The banding "headquarters" (building) continued to be a major blessing, not only as a safe place to keep the "bird-mobile" and banding materials, but 1) as a work-site on the cold, windy and misty days, and 2) as a warm, wind-free rest area between net checks. However, the picnic table under the canopy continued to be the primary banding work station. The volunteers at the banding station will always be grateful to the LLCC Work Force Careers Center for making this building possible. Of course, the backbone of the station's operations is its volunteers. During the spring season there were at least 24 individuals who volunteered one of more days at the station. **Table 5** provides a brief accounting of this spring's volunteer support in terms of individual person-days worked.

**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, 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, for the meaningful lectures to visiting classrooms, for keeping the bird feeders full and maintaining the feeding station; c) many regular assistants (notably Paul Biggers—including arrangements to get the "bird-mobile" to and from the shop, Mel Breyer, Joe Gardner, Wayne Huckabee—who regularly arrived early on Wednesdays along with Paul Biggers to set up the nets that day and for helpful improvements for station operations and safety, Anna Kozlov, Jim Mordacq, Asya Rahlin, Nancy Redman, Andrew Sharp, Susan Shaw, and Kelsey Thornton); d) all who donated wish-list items and necessities for the new facility and station; e) to Paul Biggers and Anthony Rothering for reviewing and providing pertinent comments on the draft of this report, and f) everyone else who helped and/or visited the station (including dozens of LLCC classroom students and at least 10 LLCC classes) any time during the season. Thanks, too, to everyone who provided financial support, especially to The Rotary Club of Springfield South for another grant, the Redmans for unique grants and several anonymous donors.

The LLCC BBS is scheduled to resume next fall from 20 August through 16 November. See you then.

P.O. Box 13442  
Springfield, IL 62791

## **APPENDIX: 2018 Spring Banding Summary**

**Bold Face = New Station Species (3)**

\*\* new seasonal high total (16 species)      T ties high total all seasons (5 species)

\* new spring season high total (19 species)      t ties spring season high total (2 species)

Sharp-shinned Hawk	1	Psairie Warbler	1T
Mourning Dove	7*	Palm Warbler	52**
<b>Black-billed Cuckoo</b>	<b>1**</b>	Black-and-white Warbler	1
Ruby-throated Hummingbird	3	American Redstart	12t
<u>Belted Kingfisher</u>	<u>1</u>	<u>Ovenbird</u>	<u>5</u>
Red-headed Woodpecker	1	Northern Waterthrush	23
Red-bellied Woodpecker	1	Mourning Warbler	3T
Downy Woodpecker	3	Common Yellowthroat	51*
Northern Flicker	4	Wilson's Warbler	10**
<u>Eastern Wood-Pewee</u>	<u>6*</u>	<u>Canada Warbler</u>	<u>6**</u>
Traill's Flycatcher	12**	Yellow-breasted Chat	1
Least Flycatcher	5*	<b>Scarlet Tanager</b>	<b>3**</b>
Eastern Phoebe	15*	Eastern Towhee	1
Great Crested Flycatcher	1	American Tree Sparrow	3
<u>Eastern Kingbird</u>	<u>1</u>	<u>Chipping Sparrow</u>	<u>29</u>
Warbling Vireo	1	Clay-colored Sparrow	2T
Red-eyed Vireo	4*	Field Sparrow	28**
Tree Swallow	4	Savannah Sparrow	1
No. Rough-winged Swallow	1T	<b>Vesper Sparrow</b>	<b>1**</b>
<u>Blue Jay</u>	<u>13</u>	<u>Fox Sparrow</u>	<u>14*</u>
American Crow	1T	Song Sparrow	59*
Black-capped Chickadee	15*	Lincoln's Sparrow	10
Tufted Titmouse	7	Swamp Sparrow	48
Red-breasted Nuthatch	5*	White-throated Sparrow	47
<u>White-breasted Nuthatch</u>	<u>2</u>	<u>White-crowned Sparrow</u>	<u>17</u>
Brown Creeper	21*	"Slate-colored" Junco	235
Carolina Wren	6*	Northern Cardinal	47*
House Wren	35t	Rose-breasted Grosbeak	25**
Winter Wren	3*	Indigo Bunting	21**
<u>Marsh Wren</u>	<u>2**</u>	<u>Red-winged Blackbird</u>	<u>47</u>
Golden-crowned Kinglet	48**	Common Grackle	46
Ruby-crowned Kinglet	65*	Brown-headed Cowbird	14
Eastern Bluebird	3*	Orchard Oriole	1
Veery	2	Baltimore Oriole	9**
<u>Gray-cheeked Thrush</u>	<u>26**</u>	<u>House Finch</u>	<u>13</u>
Swainson's Thrush	138**	Pine Siskin	3
Hermit Thrush	21*	American Goldfinch	50
Wood Thrush	1	House Sparrow	23
American Robin	65*		
<u>Gray Catbird</u>	<u>40</u>		
Brown Thrasher	14	Total Birds Banded	1687
European Starling	4	Total Species Banded	87
Tennessee Warbler	7		
Orange-crowned Warbler	1	Supplemental Banding (from special traps)	None
<u>Nashville Warbler</u>	<u>12</u>		
Yellow Warbler	17**		
Chestnut-sided Warbler	2t		
Magnolia Warbler	5		
Yellow-rumped (Myrtle) Warbler	72*		

