

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

**Report and Results, Fall 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 ninth migratory season and fifth fall season on Monday, 22 August 2016. The site was the same as the eight 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. A hummingbird feeder was also placed in the area to allow more of these birds to be attracted and banded. This fall, from 12 to 25 mist nets were used on 73 mornings (practically all weekdays and most Saturdays) from 22 August through 18 November with 5100 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) – 6 nets; b) a narrow woodland edge next to a soybean field -- 2 nets; c) a mowed grassy lane -- 4 nets; d) a small, managed prairie – 5 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 and promoted by the North American Bird Banding Council (2001) – continued to be 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 2016 Fall statistics and compares them with those of the three previous fall seasons.

<u>Fall Comparisons</u>	<u>TABLE 1</u>	Fall 2013	Fall 2014	Fall 2015	<b>Fall 2016</b>
First banding Date		08/26	08/25	08/24	<b>08/22</b>
Last banding Date		11/15	11/14	11/20	<b>11/18</b>
Number of banding days		64	64	69	<b>73</b>
Number of birds banded		1902	2670	2047	<b>2318</b>
Number of species banded		70	79	80	<b>78</b>
Average number of Birds per day		29.7	41.7	29.7	<b>31.8</b>
Highest one-day total banded		194	117	120	<b>241</b>
Number of days with 100+ birds banded		5	4	2	<b>4</b>
Number of Net Hours		5596	5103	5669	<b>5100</b>
Number of banded birds per Net Hour		0.34	0.52	0.36	<b>0.45</b>
Returns of Banded Birds*		35	81	57	<b>53</b>
<u>Repeats of Banded Birds**</u>		470	513	572	<b>507</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.

During the 2016 fall season there were four days when 100 or more birds were banded -- the greatest number was **241** birds (19 October) which established a **new one-day station record**. In contrast, there were 6 days in which five or fewer birds were banded compared to 6, 2 and 10 in 2013, 2014 and 2015 respectively. The 78 species banded this year was just short of the 79 & 80 species banded in 2014 & 2015, respectively, and could easily have exceeded the record of 80 had we captured only three or more of any of the following species: either cuckoo, Red-headed Woodpecker, Yellow-bellied Sapsucker, Yellow-bellied Flycatcher, Great Crested Flycatcher, Philadelphia Vireo, any swallow, European Starling, 3-4 more warbler species, either tanager, Eastern Towhee, Rose-breasted Grosbeak, two blackbirds, either oriole, Purple Finch or Pine Siskin. The final tally of birds captured this fall (2318) was the second-best fall season – just 350 birds short of the 2014 record (even though there were 9 more banding days and an equal number of net hours this year). The primary differences this fall -- as depicted in Table 2 -- were a) the American Goldfinch – where, in round numbers, nearly 600 were banded in both 2013 & 2014 but only 336 banded (about 55% as many); and b) the American Robin (normally in the top 10 but #11 this year) with only 53 banded, and, most warblers and grassland species in lower numbers than the last two fall seasons. The season was also quite warm (too warm) and the birds did not pass through in waves because of the lack of conspicuous cold fronts--there was only one significant cold front (on the evening of 18 Oct.) when, the next day, the 241 birds were banded. On most fall nights (and days) there was a warm “southerly” breeze/wind that was not conducive to concentrated migration. However, for the 2016 season, there were still record numbers for several species (especially the wrens and kinglets) – detailed in the APPENDIX. The complete list of species captured this fall and the number of each banded is also provided in the APPENDIX. The three new species for the station are identified in **red bold face** and bring the accumulative station total to 118. In addition to the capture of birds in the mist nets, 18 Ruby-throated Hummingbirds were captured and banded as a result of a trap over the hummingbird feeder.

The average of 31.8 birds per day was quite similar to the 29.7 of both 2013 and 2015, but well below the 41.7 of 2014; however, the 2015 & 2016 figures include days that were “shortened” (both by the number of nets in and hours of operation) because of excessive rain and wind (especially south and west winds) — wind-blown nets made it difficult to capture and hold birds as the nets became taut as well as conspicuously visible. The lower number of net hours is due in part to the use of fewer nets on rain and/or wind-shortened days, and a modest compensation for deer damage (unrepairable holes made in the nets – reducing the potential for capturing birds). Although the nets within the woodlands were responsible for capturing several species not caught in other habitats, only three of the six nets there could be considered consistently productive this year. Three of the five prairie nets, six of the eight feeder-area nets and four of the six edge nets were the most continuously productive this year.

Table 2 identifies a) the 10 most commonly banded species this fall and compares them with the totals of the three previous fall seasons, and b) the species that are typically in the top 10 (in approximate descending order) at most other eastern and midwestern fall banding stations. Only three of the “typical” top 10 were represented at the LLCC BBS this fall. As previously referenced, the American Goldfinch has often ranked as the most commonly banded species in years past and regained that top position again this year (despite the “lower” numbers).

**TABLE 2**

**The 10 most commonly banded species**

	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
American Goldfinch	579	629	243	<b>336</b>
Dark-eyed (Slate-colored) Junco	104	169	284	<b>269</b>
House Finch	52	216	102	<b>250**</b>
Chipping Sparrow	84	170	27*	<b>163</b>
White-throated Sparrow	98	92	96	<b>158**</b>
Yellow-rumped (Myrtle) Warbler	88	107	84	<b>120</b>
House Sparrow	91	178	67	<b>80</b>
Swamp Sparrow	83	35*	55	<b>68</b>
Song Sparrow	86	48*	120	<b>60</b>
Common Yellowthroat	27*	20*	17*	<b>54</b>

\*Not in the Top 10 these years  
 \*\* New Fall Season high

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

White-throated Sparrow
American Goldfinch
Yellow-rumped (Myrtle) Warbler
Gray Catbird
Hermit Thrush
Ruby-crowned Kinglet
American Robin
Northern Cardinal
Magnolia Warbler
Swainson’s Thrush
Ovenbird
Nashville Warbler
Golden-crowned Kinglet

In contrast to the most common birds, 12 species were represented by a single individual this fall (compared to 12, 14 & 17 for 2013, 2014 & 2015, respectively), and another 6 by just two birds. The new species banded at the station this fall

were the **Belted Kingfisher, Grasshopper Sparrow** and **Eurasian Tree Sparrow**; and the six Eastern Bluebirds and a Yellow-breasted Chat were firsts for a fall season. Other interesting captures included a two Sharp-shinned Hawks, a Cooper's Hawk, a Marsh Wren, two Bay-breasted Warblers, two Northern Parulas, a Mourning Warbler, a Savannah Sparrow, and a Le Conte's Sparrow. Most of the interesting "non-captures" were referenced above. In terms of species groups caught there were: 32 woodpeckers of 4 species, 28 flycatchers of 4 species, 9 vireos of 4 species, 72 wrens of 4 species (42 House Wrens), 131 thrushes of 7 species (53 robins & 36 Hermits), 347 warblers of 19 species (120 Yellow-rumped & 54 Common Yellowthroats), and 775 sparrows of 13 species (269 juncos, 163 Chipping, 158 White-throated & 68 Swamp). With the station now in its ninth overall season, the number of new "high" seasonal totals wasn't expected to be as numerous as in seasons past. Regardless, new "single-season" highs were set for 17 species this fall (including the 3 first-time species) and ties were recorded for another 7. There were three new "fall season" highs and two ties (see APPENDIX). As always, an occasional casualty occurs; fortunately, the number of casualties continued to be extremely low (as it has been for all banding seasons), but the ten this year was higher than any past season. Of these ten, three were killed directly by deer attempting to eat them (personal observation) and a Cooper's Hawk was responsible for another three. As usual, the station continued to be the benefactor of various specimens from LLCC staff and visitors (primarily window casualties) for identification and donation to the State Museum.

The five issues affecting banding operations (and, in some cases, the potential number of nets used each day) were wind, rain, leaves, people and deer. Very little could be done about the wind and rain except to furl nets that had been opened. As for leaves, when leaves are in the nets, the number of birds captured was reduced in two ways: 1) the birds could see and therefore avoided leaf-filled nets, and 2) considerable time was required to extract the leaves and during that time, when people were at the nets, birds avoided the capture area. [This year, however, unlike all previous fall seasons, a heavy leaf-fall (which normally occurs on five or more days each fall) did not (thankfully) occur; there were modest leaf-fall days – but nothing major.] Of course, all leaves (and their remnants) had to be totally removed from the nets prior to furling each day, otherwise, the nets could not have been readily unfurled the next morning. As for people, there were four types: full classrooms, interested students (some earning extra classroom credits), periodic wanderers, and those with dogs. The classroom groups, students 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 the nets 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. Fortunately none of the nets were damaged by running dogs this fall. Then there were the deer (and more deer). The only hope remains that they learn where the nets are when they are furled (and readily visible) and avoid them when 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 doesn't stop them. The deer in the area of the banding station are so tame, they don't even flee when you actively try to chase them away.

The banding "headquarters" (building) has been 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 colder, windy and rainy 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. We will always be grateful to the LLCC Work Force Careers Center for making this possible.

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) and Stevie Emmons for near-daily assistance in all aspects of the project from beginning to end; c) many more regular assistants (especially Paul & Ruth Biggers, Wayne Huckabee, Logan McHenry, Mike Kennedy, Ron Moorman, Angie Muhs, Jim Mordacq, Tyler Namoff, Bruce & Nancy Redman, and Andrew & Bob Sharp); d) all who donated wish-list items for the new facility and station; e) to Paul & Ruth Biggers who loaned us the "Ruth-mobile" while the station's "bird-mobile" was in the shop; f) Paul Biggers, Anthony Rothering and Stevie Emmons for reviewing and providing pertinent comments on the draft of this report, and g) everyone else who helped and/or visited the station (including 81+ LLCC classroom students and at least 9 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 spring from 20 March through 26 May. See you then.

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## APPENDIX: 2016 Fall Banding Summary

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

\*\* new seasonal high total (17 species)

\* new fall season high total (3 species)

T ties high total all seasons (7 species)

t ties fall season high total (2 species)

Sharp-shinned Hawk	2 T
Cooper's Hawk	1
Mourning Dove	4
Ruby-throated Hummingbird	5
<b>Belted Kingfisher</b>	<b>2 **</b>
Red-bellied Woodpecker	2
Downy Woodpecker	23
Hairy Woodpecker	1
Northern Flicker	6
<u>Eastern Wood-Pewee</u>	<u>8 **</u>
Traill's Flycatcher	4
Least Flycatcher	6 T
Eastern Phoebe	10
White-eyed Vireo	2 *T
<u>Blue-headed Vireo</u>	<u>1 T</u>
Warbling Vireo	3 *t
Red-eyed Vireo	3
Blue Jay	9
Black-capped Chickadee	30 **
<u>Tufted Titmouse</u>	<u>14</u>
White-breasted Nuthatch	8
Red-breasted Nuthatch	1
Brown Creeper	21
Carolina Wren	14 **
<u>House Wren</u>	<u>42 **</u>
Winter Wren	15 **
Marsh Wren	1 T
Golden-crowned Kinglet	24 **
Ruby-crowned Kinglet	39 **
<u>Eastern Bluebird</u>	<u>6 **</u>
Veery	4
Gray-cheeked Thrush	4
Swainson's Thrush	23
Hermit Thrush	36
<u>Wood Thrush</u>	<u>5 **</u>
American Robin	53
Gray Catbird	16
Brown Thrasher	5
Cedar Waxwing	9
<u>Tennessee Warbler</u>	<u>38</u>
Orange-crowned Warbler	9
Nashville Warbler	32
Northern Parula	2 **
Chestnut-sided Warbler	1
<u>Magnolia Warbler</u>	<u>10</u>
Yellow-rumped Warbler	120
Black-throated Green Warbler	5
Palm Warbler	29 **
Bay-breasted Warbler	2
<u>Black-and-white Warbler</u>	<u>4</u>
American Redstart	17
Ovenbird	12
Northern Waterthrush	4
Mourning Warbler	1
<u>Common Yellowthroat</u>	<u>54 **</u>

Wilson's Warbler	5 T
Canada Warbler	1
Yellow-breasted Chat	1 *
American Tree Sparrow	1
<u>Chipping Sparrow</u>	<u>163</u>
Field Sparrow	16
Savannah Sparrow	1 t
<b>Grasshopper Sparrow</b>	<b>1 **</b>
LeConte's Sparrow	1 T
<u>Fox Sparrow</u>	<u>3</u>
Song Sparrow	60
Lincoln's Sparrow	8
Swamp Sparrow	68
White-throated Sparrow	158 **
<u>White-crowned Sparrow</u>	<u>26</u>
"Slate-colored" Junco	269
Northern Cardinal	50
Indigo Bunting	16
Common Grackle	1
<u>House Finch</u>	<u>250 **</u>
American Goldfinch	336
House Sparrow	80
<b>Eurasian Tree Sparrow</b>	<b>1 **</b>
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Total Birds Banded	2318
Total Species Banded	78

### Supplemental Banding (from special trap)

Ruby-throated Hummingbird 18

