



2019 Breeding Bird Survey at the Huston-Brumbaugh Nature Center (Stark Co., OH)

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INTRODUCTION

- Multiple reports have been published recently that indicate a drastic decline in bird populations over the last 50 years, including species common in Ohio.
- The purpose of this project was to document which bird species are breeding at the Huston-Brumbaugh Nature Center (HBNC) and identify any species that may be missing.
- The HBNC consists primarily of 230 acres of forests and fields and includes properties in Stark and Columbiana counties.

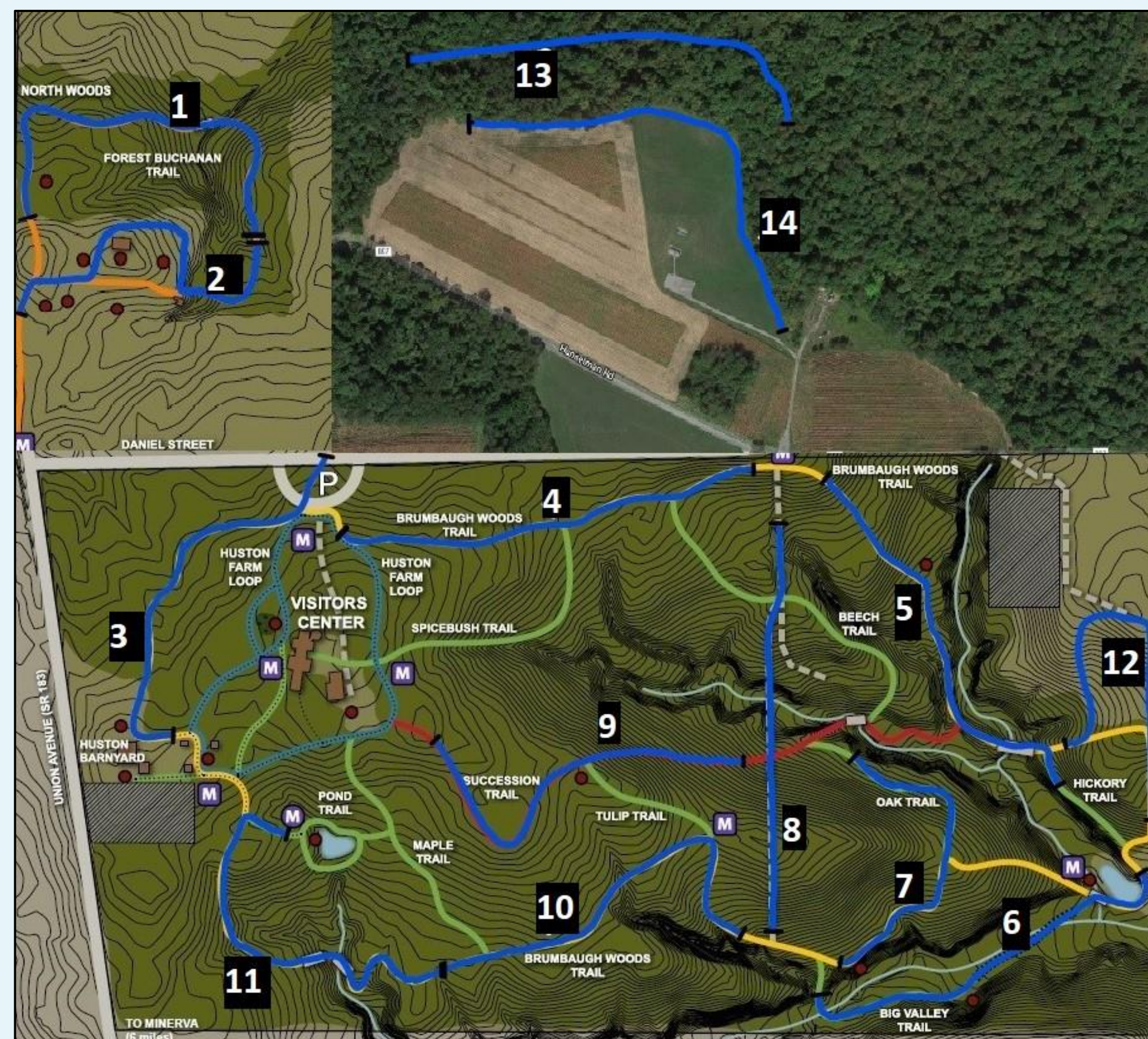


Figure 1. Map of transect locations on the HBNC property.

MATERIALS and METHODS

- Transects:** Fourteen 400-m transects were established on the property and walked over a 30-min period (Figure 1). Two transects were walked each sampling day between 7 and 10:30 am from Jun 3 to Aug 9, 2019. All bird species seen and heard were noted.
- Bird Banding:** Mist nets were put up once a week from 6 am to 12 pm along the Powerline Corridor from Jun 6 to Aug 1 when conditions were suitable. Birds that were captured were identified and banded.
- Point Counts:** During the bird banding sessions, all species seen and heard from that one location were also noted.

RESULTS

Table 1. Bird species noted by observation method and listed in taxonomic order according to the American Ornithological Society.

Bird Species	Transects	Bird Banding	Point Counts	Breeding?
1. Canada goose	--	--	YES	NO
2. Mourning dove	YES	--	YES	YES
3. Yellow-billed cuckoo	YES	--	YES	YES
4. Chimney swift	YES	--	YES	Maybe
5. Ruby-throated hummingbird	YES	--	YES	YES
6. Killdeer	YES	--	YES	Maybe
7. Turkey vulture	YES	--	YES	NO
8. Red-tailed hawk	YES	--	--	YES
9. Barred owl	--	--	YES	YES
10. Red-bellied woodpecker	YES	--	YES	YES
11. Downy woodpecker	YES	YES	YES	YES
12. Hairy woodpecker	YES	YES	YES	YES
13. Northern flicker	YES	--	YES	YES
14. Pileated woodpecker	YES	--	YES	YES
15. Great crested flycatcher	YES	--	YES	YES
16. Eastern wood pewee	YES	YES	YES	YES
17. Acadian flycatcher	YES	YES	YES	YES
18. Eastern phoebe	YES	--	YES	YES
19. Yellow-throated vireo	YES	--	YES	YES
20. Red-eyed vireo	YES	YES	YES	YES
21. Bluejay	YES	--	YES	YES
22. American crow	YES	--	YES	YES
23. Tree swallow	YES	--	YES	YES
24. Purple martin	YES	--	YES	NO
25. Barn swallow	YES	--	YES	YES
26. Black-capped chickadee	YES	--	YES	YES
27. Tufted titmouse	YES	--	YES	YES
28. White-breasted nuthatch	YES	YES	YES	YES
29. House wren	YES	YES	YES	YES
30. Carolina wren	YES	--	YES	YES
31. Blue-gray gnatcatcher	YES	--	YES	YES
32. Eastern bluebird	YES	YES	YES	YES
33. Veery	YES	--	YES	YES
34. Wood thrush	YES	YES	YES	YES
35. American robin	YES	YES	YES	YES
36. Gray catbird	YES	YES	YES	YES
37. Brown thrasher	YES	--	YES	YES
38. Northern mockingbird	YES	--	--	YES
39. European starling	YES	--	YES	YES
40. Cedar waxwing	YES	--	YES	Maybe
41. House sparrow	YES	--	--	YES
42. House finch	YES	--	--	YES
43. American goldfinch	YES	YES	YES	YES
44. Chipping sparrow	YES	YES	YES	YES
45. Field sparrow	YES	--	--	YES
46. Song sparrow	YES	YES	YES	YES
47. Swamp sparrow	--	YES	--	Maybe
48. Eastern towhee	YES	YES	YES	YES
49. Baltimore oriole	YES	--	YES	YES
50. Red-winged blackbird	YES	--	YES	YES
51. Brown-headed cowbird	YES	YES	YES	YES
52. Common grackle	YES	--	YES	Maybe
53. Ovenbird	YES	--	YES	YES
54. Louisiana waterthrush	--	YES	--	Maybe
55. Common yellowthroat	YES	--	--	YES
56. Hooded warbler	YES	YES	YES	YES
57. American redstart	YES	YES	YES	YES
58. Yellow warbler	YES	--	--	YES
59. Scarlet tanager	YES	YES	YES	YES
60. Northern cardinal	YES	YES	YES	YES
61. Rose-breasted grosbeak	YES	YES	YES	YES
62. Indigo bunting	YES	--	YES	YES
TOTALS	58	23	53	59

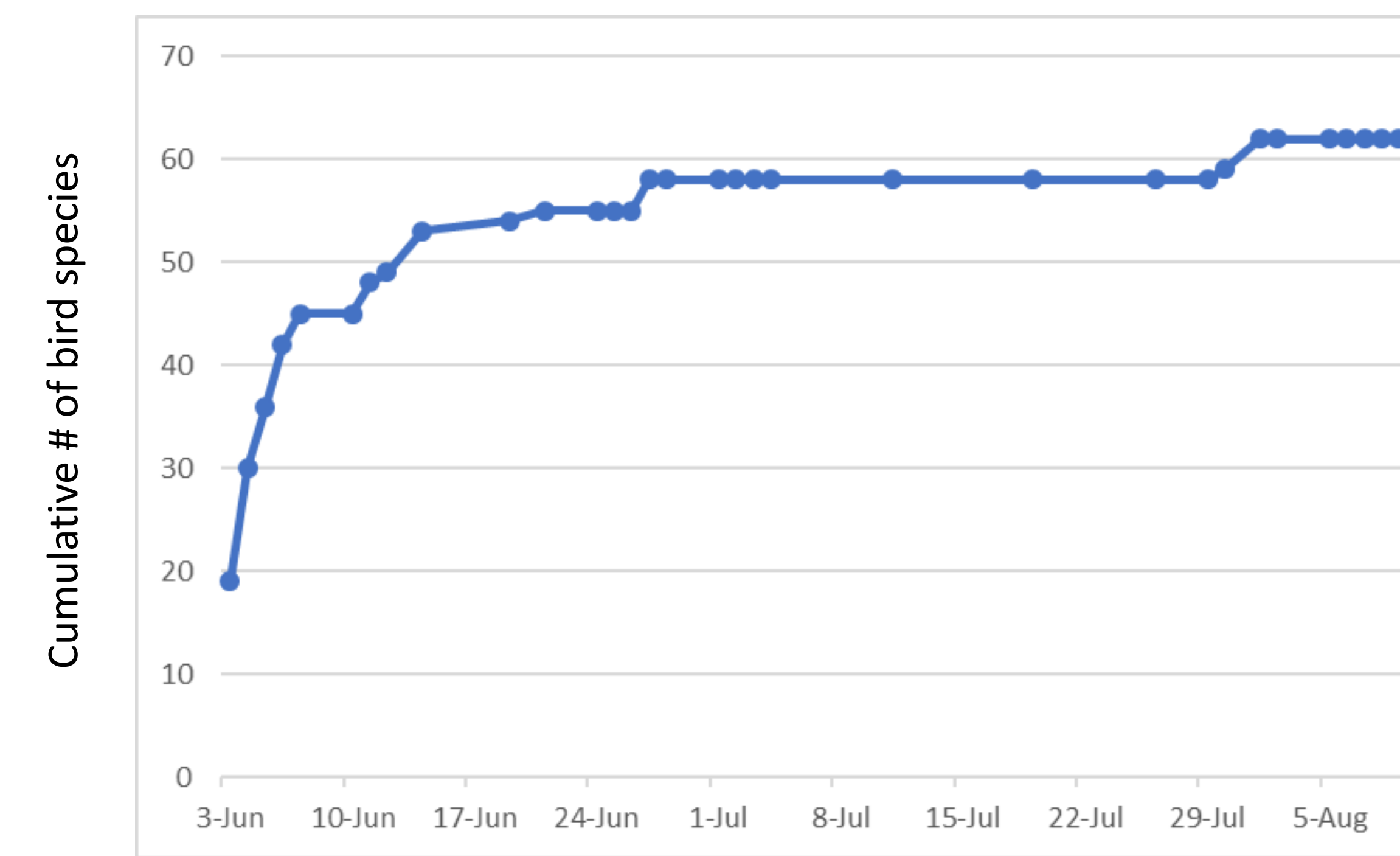


Figure 2. Species accumulation curve for birds during summer 2019.

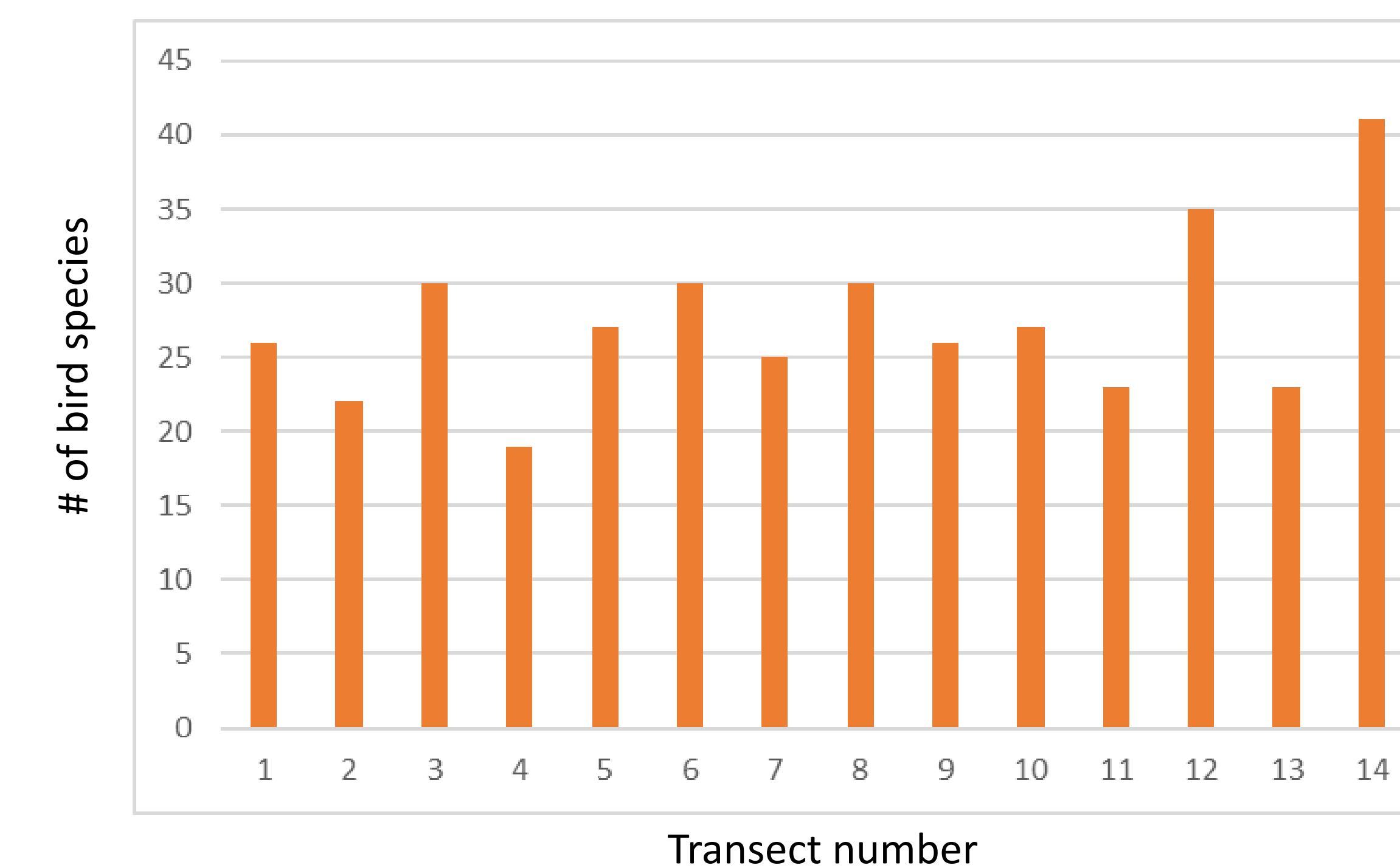


Figure 3. Number of bird species seen and heard by transect over the full sampling season.

CONCLUSIONS

- A total of 62 bird species were recorded via transects, bird banding, and point counts from June 3 to Aug 9 but not all species are believed to be breeding at HBNC (Table 1).
- 58 of the 62 species (93.5%) were recorded by Jun 27. Transects should be started in May if this project is repeated (Figure 2).
- Red-bellied woodpecker, Acadian flycatcher, Red-eyed vireo, House wren, Wood thrush, and Northern cardinal were present on all transects.
- Wood thrush was the most common species encountered in this study. It is listed as a "Near Threatened" species by the International Union for Conservation of Nature.
- Species that could be breeding on the property but were not recorded include Wild turkey, Wood duck, hawk species such as Cooper's hawk, and owl species such as the Great-horned owl.
- Transect 14 highest species richness (41) and Transect 4 had the lowest (19). The average number of bird species/transect was 27.4 (Figure 3).
- Overall the HBNC appears to have a healthy breeding bird community in the forested areas but improvements could be made to the field/grassland areas.



Figure 4. Three common species found in this study a) House wren, b) Acadian flycatcher, and c) Red-eyed vireo.

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