

An Ornithological Survey of the Site of
The University of Athabasca

Report submitted by Kathleen Ball and Robert Lister

The site of the University is typical of the Alberta parkland being mainly aspen poplar (*Populus tremuloides*) groves interspersed by grassland. It does, however, hold some extremely interesting features as far as bird habitats are concerned. Among these are the Sturgeon River with its banks and contiguous woods; the ravine that runs in a northwesterly direction towards the road that transects the site; and the small pond that lies to the northwest of the Indian Residential School. In addition the trees and shrubs planted around the school buildings attract birds that otherwise might not visit the area.

A general survey of the site was made on September 12 and a further one on September 14. On these occasions 18 species of birds were seen with 211 individuals recorded. Species noted were:

Mallard (*Anas platyrhynchos*)
Blue-winged Teal (*Anas discors*)
Red-tailed Hawk (*Buteo jamaicensis*)
Marsh Hawk (*Circus cyaneus*)
Gray Partridge (*Perdix perdix*)
Lesser Yellowlegs (*Totanus flavipes*)
Ring-billed Gull (*Larus delawarensis*)
Yellow-shafted Flicker (*Colaptes auratus*)
Blue Jay (*Cyanocitta avistata*)
Black-billed Magpie (*Pica pica*)
Black-capped Chickadee (*Parus atricapillus*)
Red-breasted Nuthatch (*Sitta canadensis*)
Myrtle Warbler (*Dendroica coronata*)
Pine Siskin (*Spinus pinus*)
American Goldfinch (*Spinus tristis*)
Slate-colored Junco (*Junco hyemalis*)
Tree Sparrow (*Spizella arborea*)
White-throated Sparrow (*Zonotrichia albicollis*)

On September 16 a census of the birds in the ravine was made (Area No. 2 on accompanying map).

The species and number of birds counted are listed below.

Coopers Hawk (*Accipiter cooperi*) 1
 Red-tailed Hawk (*Buteo jamaicensis*) 1
 Great Horned Owl (*Bubo virginianus*) 1
 Yellow-shafted Flicker (*Colaptes auratus*) 1
 Yellow-bellied Sapsucker (*Sphyrapicus varius*) 1
 Hairy Woodpecker (*Dendrocopus villosus*) 1
 Downy Woodpecker (*Dendrocopus pubescens*) 1
 Blue Jay (*Cyanocitta cristata*) 2
 Black-billed Magpie (*Pica pica*) 3
 Black-capped Chickadee (*Parus atricapillus*) 6
 American Robin (*Turdus migratorius*) 8
 Hermit Thrush (*Hylocichla guttata*) 1
 Cedar Waxwing (*Bombocilla cedrorum*) 2
 Myrtle Warbler (*Dendroica coronata*) 5
 American Goldfinch (*Spinus tristis*) 3
 Slate-colored Junco (*Junco hyemalis*) 15
 White-crowned Sparrow (*Zonotrichia leucophrys*) 4
 White-throated Sparrow (*Zonotrichia albicollis*) 10

On September 17 a similar census was made of the birds of the Sturgeon River, the river banks and the adjoining woods (Area No. 1 on map).

This count coincided with a good migratory movement of birds through the area which is reflected in the 31 species and 254 individual birds recorded. The result of this census follows:

Great Blue Heron (*Ardea herodias*) 1
 Mallard (*Anas platyrhynchos*) 15
 Green-winged Teal (*Anas carolinensis*) 15
 Blue-winged Teal (*Anas discors*) 20
 Red-tailed Hawk (*Buteo jamaicensis*) 2
 Ruffed Grouse (*Bonasa umbellus*) 1
 Killdeer (*Charadrius vociferus*) 1
 Lesser Yellowlegs (*Totanus flavipes*) 40
 Yellow-shafted Flicker (*Colaptes auratus*) 5
 Least Flycatcher (*Empidonax minimus*) 3
 Black-billed Magpie (*Pica pica*) 4
 Black-capped Chickadee (*Parus atricapillus*) 10
 Red-breasted Nuthatch (*Sitta canadensis*) 1
 House Wren (*Troglodytes aedon*) 2
 American Robin (*Turdus migratorius*) 16

Hermit Thrush (*Hylocichla guttata*) 1
 Swainson's Thrush (*Hylocichla ustulata*) 1
 Veery (*Hylocichla fusescens*) 1
 Ruby-crowned Kinglet (*Regulus calendula*) 2
 Cedar Waxwing (*Bombocilla cedroman*) 3
 Orange-crowned Warbler (*Vermivora celata*) 3
 Yellow Warbler (*Dendroica petechia*) 3
 Myrtle Warbler (*Dendroica coronata*) 7
 Purple Finch (*Carpodacus purpureus*) 1
 American Goldfinch (*Spinus tristis*) 1
 Slate-colored Junco (*Junco hyemalis*) 30
 Tree Sparrow (*Spiyella arborea*) 2
 Harris' Sparrow (*Zonotrichia querula*) 1
 White-crowned Sparrow (*Zonotrichia leucophrys*) 1
 White-throated Sparrow (*Zonotrichia albicollis*) 60
 Lincoln's Sparrow (*Melospiza lincolni*) 1

A final survey of the university area was made on October 2. Of the 20 species seen, two were new to our list with Common Snipe (*Capella gallinago*) and Pectoral Sandpiper (*Erolia melanotus*) being found along the river.

It was unfortunate the survey was made in autumn when most of the breeding birds of the area had moved south. From our examinations of the woods with their understories; the obvious signs such as old nests, woodpecker holes and workings; as well as the birds that still remained we can confidently predict that the following birds will be found in the drier woods, including the ravine, during spring and summer.

1. Cooper's Hawk (*Accipiter cooperi*)
2. Red-tailed Hawk (*Buteo jamaicensis*)
3. Pigeon Hawk (*Falco columbarius*)
4. Sparrows Hawk (*Falco sparverius*)
5. Ruffed Grouse (*Bonasa umbellus*)
6. Sharp-tailed Grouse (*Pediocetes phasianellus*)
7. Ring-necked Pheasant (*Phasianus colchicus*)
8. Gray Partridge (*Perdix perdix*)
9. Mourning Dove (*Zenaidura macroura*)
10. Great Horned Owl (*Bubo virginianus*)
11. Long-eared Owl (*Asio otus*)
12. Saw-whet Owl (*Aegolius acadicus*)
13. Common Nighthawk (*Chordeiles minor*)
14. Ruby-throated Hummingbird (*Archilocus colubris*)
15. Yellow-shafted Flicker (*Colaptes auratus*)
16. Pileated Woodpecker (*Dryocopus pileatus*)

17. Yellow-bellied Sapsucker (*Sphyrapicus varius*)
18. Hairy Woodpecker (*Dendrocopus villosus*)
19. Downy Woodpecker (*Dendrocopus pubescens*)
20. Eastern Kingbird (*Tyrannus tyrannus*)
21. Eastern Phoebe (*Sayornis phoebe*)
22. Least Flycatcher (*Empidonax minimus*)
23. Western Wood Pewee (*Contopus sordidulus*)
24. Tree Swallow (*Iridoprocne bicolor*)
25. Purple Martin (*Progne subis*)
26. Blue Jay (*Cyanocitta cristata*)
27. Black-billed Magpie (*Pica pica*)
28. Common Crow (*Corvus brachyrhynchos*)
29. Black-capped Chickadee (*Parus atricapillus*)
30. Red-breasted Nuthatch (*Sitta canadensis*)
31. Brown Creeper (*Certhia familiaris*)
32. House Wren (*Troglodytes aedon*)
33. Catbird (*Dumetella carolinensis*)
34. American Robin (*Turdus migratorius*)
35. Swainson's Thrush (*Hyllocichla ustulata*)
36. Veery (*Hyllocichla fuscescens*)
37. Mountain Bluebird (*Sialis mexicana*)
38. Cedar Waxwing (*Bombocilla cedrorum*)
39. Logghead Spriker (*Lanius ludovicianus*)
40. Common Starling (*Sturnus vulgaris*)
41. Red-eyed Vireo (*Vireo olivaceus*)
42. Philadelphia Vireo (*Vireo philadelphicus*)
43. Warbling Vireo (*Vireo gilvus*)
44. Yellow Warbler (*Dendroica petechiae*)
45. Mourning Warbler (*Oporornis philadelphia*)
46. American Redstart (*Setophaga ruticilla*)
47. Baltimore Oriole (*Icterus galbula*)
48. Brewer's Blackbird (*Euphagus cyanocephalus*)
49. Common Grackle (*Quiscalus quiscula*)
50. Brown-headed Cowbird (*Molothrus ater*)
51. Rose-breasted Grosbeak (*Pheucticus ludovicianus*)
52. American Goldfinch (*Spinus tristis*)
53. Slate-colored Junco (*Junco hyemalis*)
54. Chipping Sparrow (*Spizella passerina*)
55. Clay-colored Sparrow (*Spizella pallida*)
56. White-throated Sparrow (*Zonotrichia albicollis*)
57. Song Sparrow (*Melospiza melodia*)

In addition the moist woods by the river would probably host not only those listed above but also the following:

58. Traill's Flycatcher (*Empidonax traillii*)
59. Tennessee Warbler (*Vermivora penegrina*)
60. Ovenbird (*Sieurus aurocapillus*)
61. Common Yellowthroat (*Geothlypis trichis*)
62. Red-winged Blackbird (*Agelaius phoeniceus*)
63. Western Tanager (*Piranga ludoviciana*)
64. Le Conte's Sparrow (*Passerherbulus caudacutus*)
65. Lincoln's Sparrow (*Melospiza lincolni*)
66. Swamp Sparrow (*Melospiza georgiana*)

The banks of the Sturgeon River including reed beds and sedges should attract the following as breeding birds:

67. Horned Grebe (*Podiceps auritus*)
68. Mallard (*Anas platyhynchos*)
69. Blue-winged Teal (*Anas discors*)
70. Sora Rail (*Porzana carolina*)
71. American Coot (*Fulica americana*)
72. Killdeer (*Charadrius vociferus*)
73. Common Snipe (*Capella gallinago*)
74. Spotted Sandpiper (*Actiles macularis*)
75. Lesser Yellowlegs (*Totanus flavipes*)
76. Black Tern (*Chlidonius niger*)
77. Belted Kingfisher (*Megaceryle ascyon*)
78. Long-billed Marsh Wren (*Telmadytes palustris*)

In addition the open grassland should hold:

79. Marsh Hawk (*Circus cyaneus*)
80. Short-eared Owl (*Asio flammeus*)
81. Western Meadowlark (*Sturna neglecta*)
82. Savannah Sparrow (*Passerculus sandwichensis*)
83. Vesper Sparrow (*Pooecetes gramineus*)

Finally the school building undoubtedly harbour:

84. Barn Swallow (*Hirundo rustica*)
85. House Sparrow (*Passer domesticus*)

While the conifers around the buildings should provide nesting sites for:

86. Purple Finch (*Carpodacus purpureus*)

This is obviously only an approximation of the number of species that may breed on the area. We have probably underestimated rather than overestimated the number of species that nest there.

Birds that will likely visit the site during the winter months only are:

- Goshawk (*Accipiter gentilis*)
- Snowy Owl (*Nyctea scandiaca*)
- Black-backed Three-toed Woodpecker (*Picoides arcticus*)
- Northern Three-Toed Woodpecker (*Picoides tridactylus*)
- Golden-crowned Kinglet (*Regulus satrapa*)
- Bohemian Waxwing (*Bombycilla garrulus*)
- Northern Shrike (*Lanius excubitor*)

Evening Grosbeak (*Hesperiphona vespertina*)
Pine Grosbeak (*Pinicola enucleator*)
Common Redpoll (*Acanthia flammea*)
Hoary Redpoll (*Acanthia homemanni*)
Red Crossbill (*Loxia curvirostra*)
White-winged Crossbill (*Loxia leucoptera*)
Snow Bunting (*Plectrophenax nivalis*)

The majority of this last list of birds would likely be attracted to the fruit-bearing trees and shrubs around the Indian Residential School.

Recommendations

With all of the above in mind we strongly recommend the following:

1. a. That the woods adjoining the Sturgeon River (Area 1 on map) be left intact with little or no management. We do, however, share the view with other biologists that these woods could hold a field laboratory for the study of the surrounding flora and fauna.
- b. We urge that steps be taken immediately to ensure the present flow of water in the Sturgeon River be maintained regardless of industrial development outside of the university site.
- c. We also recommend that as little management as possible be used on the bed or banks of the Sturgeon River.
2. d. We also recommend that the ravine (Area 2) be retained as closely as possible to its present state. We deplore the tendency to use natural declivities for roads and/or ditches to carry water, sewage or power. We feel that any savings immediately affected by using this ravine for such purposes would be far offset in the future by the loss of this scenic woodland with its wildlife.

3. e. We feel the trees and shrubs around the Indian Residential School (Area 3) should be left standing and probably augmented. Although we anticipate several such plantings around the campus they will take many years before they equal the present stand.
4. f. The small pond (Area 4) is, apart from the river the only permanent water area on the campus. We feel it should be preserved if only as a drinking and bathing place for birds.

However, here we would welcome some management. We think the water area could be enlarged and this, with the judicious planting of trees and shrubs, would not only make the pond an ornamental water of charm but would attract several species of birds to nest around it.

The kind of pond we envisage would provide a loafing spot for ducks and grebe and coot might nest around its shores. The shrubbery would almost certainly attract Eastern Kingbirds (*Tyrannus tyrannus*) Tree Swallow (*Iridoprocne bicolor*) American Robin (*Turdus migratorius*), Cedar waxwing (*Bombocilla cedrorum*) Yellow Warbler (*Dendroica petechia*) and probably several other species of woodland birds.

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