cons but they were very shy and we could not get near enough to identify them, much less shoot them.

Both this species and the Duck Hawk have been recorded, as taken and found breeding, at various points not far distant, and it is fair to assume that both species occur here on migration and a few may breed here. Probably they are more common along the banks of the Saskatchewan River where they can find suitable nesting sites.

- 75. Falco richardsonii. RICHARDSON'S MERLIN.— Rare. I shot an adult male near Hay Creek on June 1, 1905, and Dr. Bishop and Dr. Dwight secured an adult female on July 17, 1906, about 15 miles north of Maple Creek. Two or three others, supposed to be this species, were seen elsewhere. Prof. Macoun gives several records of its breeding in this region.
- 76. Falco sparverius. AMERICAN SPARROW HAWK.—Common in the timber along the creeks in 1905, but less common in 1906. We found 6 nests in 1905 and only one in 1906. Nests with eggs were found on May 30 and June 5 and 14, 1905, and on June 30, 1906. The nests were mostly in natural cavities in the box elders but some of them were in old Flickers' holes. Both sexes incubate.

The birds that we collected were all in worn breeding plumage and were referable to $phal\alpha na$, but I doubt if this subspecies is worthy of recognition.

(To be concluded.)

FURTHER NOTES FROM EXTREME SOUTHERN ILLINOIS.

BY JOHN F. FERRY.

The extreme southern end of Illinois was visited by the writer from August 10–24 inclusive to carry on an ornithological investigation for the Field Museum of Natural History, Chicago. The region studied is included in the Austroriparian Faunal Area of Dr. Merriam. The heat and humidity are extreme and a corresponding luxuriance of vegetation is the result.¹ The birds were found in greatest abundance in the deep woods bordering Cypress Swamps. Dense thickets bordering roads and fields were also favorite haunts, though during the intense heat of mid-day these were deserted for the cooler shade of the woods. Generally speak-

 $^{^{1}}$ For list of characteristic trees and shrubs of this region see Auk, Vol, XXIV, July 1907, p. 285.

ing, birds were surprisingly scarce. A few of the commoner varieties were met in great abundance, i. e., Cardinals, Tufted Titmice, Northern Yellow-throats, Field Sparrows and Indigo Buntings, but often the woods seemed entirely deserted. The birds as a rule were moulting and very ragged in appearance. Young birds of the year were much commoner than the adults. The time in the field was spent as follows: Olive Branch, Aug. 10–17; Mound City, Aug. 18–22; Grand Chain, Aug. 23–24, all inclusive. When a bird is said to be "common," etc., and no locality is mentioned, the status thus given refers to its abundance in the general locality here discussed.

Through the courtesy of the U. S. Weather Bureau at Cairo, I am able to give the daily conditions of the weather.

Aug. 1907	Temperature.			Wind.			State of Weather.	
	Maximum.	Minimum.	Precipitation.	Prevailing direction of wind.	Total daily movement.	Highest daily velocity.	Character of day.	Percentage of cloudiness.
10 11 12 13 14 15 16 17 18 19 20 21 22 23	91 91 84 83 88 86 88 82 86 89 82 73 73 82	74 74 69 66 68 71 74 70 66 71 73 65 64 68	.23 0 .79 0 T T T .15 0 0 T T .15	EEEEE WEE EEW	140 87 180 239 180 179 207 198 94 123 162 219 120 161	18 7 24 18 18 12 15 29 7 10 16 18 10	Clear Clear Pt. Cloudy Clear Pt. Cloudy Pt. Cloudy Cloudy Clear Clear Clear Clear Cloudy Cloudy Cloudy Cloudy Cloudy	20 60 10 30 60 70 90 100 100 100

Statement of Weather at Cairo, Ill.

^{1.} Aix sponsa. Wood Duck.—Breeding abundantly in Horse-shoe Lake, a body of water in Cypress Swamp near Olive Branch. The young of the year greatly predominated over the adults. Of four specimens all were $\mbox{$\mathbb{Q}$}$ jv. They feed near the borders of the cypress in threes and fours, and were not wary.

^{2.} Ardea herodias. Great Blue Heron.—Common about Horse Shoe Lake, and few seen at Mound City.

- 3. Butorides virescens. Green Heron.—Common at Olive Branch, Mound City and Grand Chain. Called here "Injun Hen."
- 4. Nycticorax nycticorax nævius. Black-crowned Night Heron.—One seen at Horse Shoe Lake.
- 5. **Helodromas solitarius.** Solitary Sandpiper.— One seen at Horse Shoe Lake.
- 6. Actitis macularia. Spotted Sandpiper.— Two seen at Mound City.
 - 7. Oxyechus vociferus. Killder. Two seen at Olive Branch.
- 8. Colinus virginianus. Bobwhite.—Abundant at Olive Branch, where young varying from the size of an English Sparrow up to the size of adults were seen. The birds were frequently met in flocks of ten to fifteen. Bobwhites were common at the other places visited.
- 9. Zenaidura macroura. Mourning Dove.— Abundant in all places visited.
- 10. Cathartes aura. Turkey Vulture.—Common everywhere in this region.
 - 11. Accipiter cooperi. Cooper's Hawk.— One seen at Olive Branch.
- 12. Buteo borealis. Red-tailed Hawk?—Several large hawks that could not be positively identified were referred to this species.
- 13. Buteo lineatus. Red-shouldered Hawk.— A young bird shot at Grand Chain.
- 14. Falco sparverius. Sparrow Hawk.—One or two seen at each place visited.
- 15. **Syrnium varium**. Barred Owl.—Abundant about Horse Shoe Lake. Frequently flushed in day time and all night its *who-whoo-too whoo-whoo* would come booming out of the Cypress Swamp.
- 16. Coccyzus americanus. Yellow-billed Cuckoo.— One taken. Cuckoos were frequently seen and heard, and possibly some of them were the Black-billed Cuckoo.
- 17. **Ceryle alcyon**. Belied Kingfisher.—Tolerably common at Horse Shoe Lake. One seen at Mound City.
- 18. **Dryobates villosus**. Hairy Woodpecker.— Tolerably common throughout the locality. Three specimens taken in August and one in February are intermediate between *villosus* and *v. auduboni*. They are nearer *auduboni* in size but in coloration they favor *villosus*.
- 19. **Dryobates pubescens medianus**. Northern Downy Woodpecker. Abundant everywhere. Specimens taken in summer and winter are decidedly nearer *p. medianus* than *p. pubescens*, though they average smaller than northern Illinois birds. The average length (in millimeters) of wing of specimens from three different localities is given here: Florida and Louisiana, 87; Southern Illinois, 91; Northern Illinois and Connecticut. 92.
- 20. Ceophlœus pileatus abieticola. Northern Pileated Woodpecker.

 One seen at Olive Branch. Local hunters report these birds tolerably common in southern Illinois. They are extremely wary.

- 21. **Melanerpes erythrocephalus**. Red-headed Woodpecker.—Common.
- 22. **Centurus carolinus**. Red-Bellied Woodpecker.—Abundant at Olive Branch. Common elsewhere. They were feeding on choke-cherries.
- 23. Colaptes auratus luteus. Northern Flicker.— Tolerably common.
 - 24. Chætura pelagica. Chimney Swift.—Common.
- 25. Trochilus colubris. Ruby-throated Hummingbird.— Profusely abundant at Olive Branch and common elsewhere.
 - 26. Tyrannus tyrannus. Kingbird.—Common.
 - 27. Mylarchus crinitus. Great-crested Flycatcher.—Common.
 - 28. Sayornis phœbe. Phœbe.— Tolerably common at Olive Branch.
 - 29. Contopus virens. Wood Pewee. Abundant.
- 30. Empidonax sp. A little flycatcher of unknown identity was tolerably common at Olive Branch.
- 31. Cyanocitta cristata. Blue Jay.—Rare at Olive Branch; common elsewhere.
 - 32. Corvus brachyrhynchos. American Crow.— Abundant.
- 33. **Agelaius phœniceus**. Red-winged Blackbird.— Abundant at Olive Branch. The females and immature birds outnumbered the full-plumaged males about 15 to 1. Common at Mound City and Grand Chain.
- 34. Sturnella magna. Meadowlark.—Common at Olive Branch and Grand Chain. In the former place they spend the heat of the day in the dense fields of hog-weed which grows up to a man's shoulders.
 - 35. Icterus spurius. Orchard Oriole,—Two seen at Olive Branch.
- 36. Icterus galbula. Baltimore Oriole.—Tolerably common at Mound City: one seen at Grand Chain.
- 37. Quiscalus quiscula æneus. Bronzed Grackle.—Common at Olive Branch and Mound City.
 - 38. Astragalinus tristis. American Goldfinch.—Common.
- 39. Coturniculus sandwichensis passerinus. Grasshopper Sparrow. One male in worn plumage taken at Olive Branch.
 - 40. Spizella pusilla. FIELD SPARROW.—Profusely abundant.
- 41. Pipilo erythrophthalmus. Towhee.— One seen at Olive Branch and Grand Chain.
 - 42. Cardinalis cardinalis. Cardinal. Abundant.
- 43. **Cyanospiza cyanea**. Indigo Bunting.—Profusely abundant. Moulting.
 - 44. Spiza americana. Dickcissel.—Common at Mound City.
- 45. Piranga erythromelas. SCARLET TANAGER.— One taken at Mound City.
 - 46. Progne subis. Purple Martin.—Common.
- 47. Petrochelidon lunifrons. CLIFF SWALLOW.—Common at Olive Branch and Grand Chain.
- 48. Riparia riparia. Bank Swallow.— Common at Olive Branch and Mound City.

- 49. Lanius ludovicianus migrans. MIGRANT SHRIKE.—Several Shrikes seen at Mound City and Olive Branch are tentatively referred to this species.
- 60. Vireo olivaceus. Red-eyed Vireo.—Common. Moulting and mostly immature birds.
- 61. **Vireo noveboracensis**. White-eyed Vireo.— The most characteristic bird of the thickets bordering the woods. It has a very pleasing and unique song. It is a rolling trill, with a flute-like quality. While listening to the song I wrote it thus: Twe-wa-ra, ra-re-ra.
- 62. Mniotilta varia. Black and White Warbler.—Common. Both adult and immature birds taken. They were found in deep woods.
- 63. **Protonotaria citrea**. Prothonotary Warbler.— Abundant. All young birds had the fully adult plumage.
- 64. Compsothlypis americana ramalinæ. Western Parula Warbler. These birds were tolerably common at Mound City. They kept to the tree tops in the river bottoms and in company with Cerulean Warblers. Three specimens, including immature as well as a fully plumaged adult, are typical of this subspecies. I believe that a considerable portion of the small flitting forms high up in the trees were of this species. Several times the faint, insect-like trill za-ze-za, zee-zee of this bird was heard.
- 65. Dendroica æstiva. Yellow Warbler.—Two young birds seen at Olive Branch on the 11th.
- 66. **Dendroica cærulea**. Cerulean Warbler.— One taken at Olive Branch in dense timber. It was abundant in the cottonwood and willow bottoms along the Ohio at Mound City. Small bands of them were found flitting about the tree tops, betraying their presence with their faint lisping notes, or by occasional snatches of their song. The latter may be represented thus: whee-ta-te, zee-ee-e-e-e.
- 67. Seiurus motacilla. Louisiana Water-Thrush.— Two seen at Olive Branch. One taken.
- 68. **Oporornis formosa**. Kentucky Warbler.— One taken at Olive Branch, 3 at Mound City. Two were taken at one shot at the latter place. The adult was feeding the immature bird, though the offspring was as large as the parent.
- 69. Geothlypis trichas brachidactyla.— NORTHERN YELLOW-THROAT.— These birds were everywhere profusely abundant and their sharp 'chip,' sounded from nearly every thicket and weed patch. Very few adult males were seen and most of the birds taken were moulting.
- 70. Icteria virens. Yellow-breasted Chat.—These shy birds were tolerably common at Olive Branch and 3 were seen at Mound City. They inhabited the densest thickets.
- 71. Wilsonia mitrata. Hooded Warbler.— One taken along Cache Creek, near Mound City.
- 72. Setophaga ruticilla. Redstart.—Tolerably common. Only 3 adult males were seen, the rest were immature or females.
- 73. Mimus polyglottos. Mockingbird.—Abundant at Grand Chain, but inexplicably absent from other localities visited.

- 74. Galeoscoptes carolinensis. Catbird.— Tolerably common; moulting.
- 75. Thryothorus ludovicianus. Carolina Wren.— Abundant. In song.
- 76. Certhia familiaris americana. Brown Creeper.— A single specimen of this bird was seen at Olive Branch on Aug. 11 creeping along trunks of cypress and tupelo trees.
 - 78. Sitta carolinensis. White-bellied Nuthatch.—Common.
- 79. Bæolophus bicolor. Tufted Titmouse. Abundant. Many young and moulting birds seen.
- 80. Penthestes carolinensis. Carolina Chickadee.— Abundant in small bands.
- 81. Polioptila cærulea. Blue-gray Gnatcatcher.— Tolerably common. Young birds predominated.
- 82. Hylocichla mustelina. Wood Thrush.—Common. Singing at Olive Branch.
 - 83. Sialia sialis. Bluebird.—Tolerably common.

GENERAL NOTES.

The Kittiwake and Purple Sandpiper again in Maine in Summer.— In 'The Auk' for July, 1907 (Vol. XXIV, p. 337) the capture of a Kittiwake in 1903 on the coast of Maine in summer was recorded. On July 14, 1907, while at Jordans Rock, a submerged ledge one mile S. E. by E. of Portland Head Light, a Kittiwake (Rissa tridactyla) flew over my boat within easy range. The small size of the bird, white head, and short black legs and feet were distinctly and critically observed as it passed over. It flew toward Grundys Reef until it disappeared.

In the 'Journal of the Maine Ornithological Society,' Vol. VI, p. 16, the capture of a specimen of the Purple Sandpiper (Arquatella maritima) at Metinic, Me., on August 11, 1902, was recorded. On August 6, 1907, while on Metinic Green Island, I saw another specimen of this bird. It stood on a large rock (behind which the greater part of my body must have been concealed from it), within three yards of me. I observed it critically, then tried to catch it; it flew readily, but showed the flight feathers to be faded and worn, and nearly ready to be moulted. Its tameness was in part due, I believe, to the drenching rain which was falling.—Arthur H. Norton, Portland, Me.

That Cinnamon Teal Record from Florida.— Unfortunately for Mr. William Brewster's theory of no reliable records for this species from the Southeastern States, my former note in 'The Auk' of a specimen from