

THE BIRDS OF FORT BENNING, GEORGIA

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Fort Benning Military Reservation is situated in Chattahoochee and Muscogee counties, to the southeast and east of Columbus, Georgia. It also extends across the Chattahoochee River into Russel Co., Alabama. Many diverse habitats are present, from the swamps along the Chattahoochee River, with an elevation of about 200 ft. (60m) above sea level, to high, dry and deep sand hills, at an elevation of over 700 ft. (215m). Several creeks (especially Bull, Oswichee, Uchee, and Upatoi) and their tributaries dissect the area. Many vegetation associations are present: bare earth and eroding hillsides; grassy drill fields and rifle ranges; shrubby fields and hillsides, with dense briar patches; hills and valleys with shortleaf pine (*Pinus echinata*), loblolly pine (*Pinus taeda*), and longleaf pine (*Pinus palustris*) with a grassy ground cover, or with bracken fern (*Pteridium aquilinum*); hills and valleys with mature deciduous trees and sparse ground cover; and deep sand hills with longleaf pine and turkey oak (*Quercus laevis*).

Our bird study was part of a program of the U.S. Army Corps of Engineers, Construction Engineering Research Laboratories (USACERL), called Land Condition-Trend Analysis (LCTA). This program is an environmental analysis designed to assess any military land-use effects on existing biotic communities.

METHODS

During the two summer surveys, birds were sampled from 3 June 1991 to 4 July 1991, by Dusi and Pursell. Similar sampling was done by McMahon and Pursell between 12 May and 26 May 1992. McMahon also made a sample of winter birds between 13 December 1992 and 21 December 1992. Samples were taken from 60 plots, located by computer methods, by which a base spot, determined by longitude and latitude, and a randomly selected azimuth, located each linear transect. The transects were 100m long and the area sampled extended to 100m on all sides of the transect. Sampling was done during the morning and afternoon song periods of calm, rainless days. Each transect had a morning and an afternoon count. This resulted in a total of 120 transect counts. Winter sampling was performed only once at each plot during the daylight hours, resulting in 60 transect counts. A modified point-count technique (Blondel, J. C., C. Ferry and B. Frochet 1981. Point counts with unlimited distance. *Studies in Avian Biology* 6: 414-420.) and (USACERL Technical Report N-92/03. U.S. Army Land Condition - Trend Analysis (LCTA) Plot Inventory Field Methods) were used. To make the count, the observer walked slowly along the length of the transect and recorded all birds seen or heard, in the sampling area. This was done in six minutes. At the end of the transect he paused for eight minutes, recording all new birds, then he retraced his transect path in another six minutes to the base point. This provided

a total observation time of 20 minutes. In addition to the transect count, all birds seen or heard on the reservation were recorded.

RESULTS

Table 1 contains the birds seen on the plots.

Table 2 contains the species seen on the reservation, but not recorded on the plots.

Table 3 contains a list of birds that should have been recorded, but were night birds, or are known to occur in the adjacent area.

Table 4 is the listing of the winter birds and their frequencies.

DISCUSSION

A total of 76 species and 2,647 individuals were recorded on the plots during the summer surveys. The five species that were abundant during the summers were: Northern Cardinal (7.4%), Rufous-sided Towhee (7.0%), Pine Warbler (6.1%), Tufted Titmouse (5.6%) and Carolina Wren (5.4%). Those commonly seen were: American Crow (4.8%), Yellow-breasted Chat (4.8%), Red-eyed Vireo (4.3%), Great Crested Flycatcher (3.5%), Red-bellied Woodpecker (3.3%), Wood Thrush (3.2%), Indigo Bunting (3.2%), Northern Bobwhite (2.9%), Blue Jay (2.5%) and Carolina Chickadee (2.5%).

During the winter survey 44 species were recorded and 939 individuals. The most abundant species were the Golden-crowned Kinglet (13.0%), Song Sparrow (10.0%), Carolina Chickadee (9.8%), Tufted Titmouse (8.2%) and Brown-headed Nuthatch (6.8%).

Six species were recorded only once during the summer surveys and four were recorded only once during the winter. Many of these were chance recordings, like the Great Blue Heron, but the American Goldfinch should have been seen more frequently. It seems that the Red-cockaded Woodpecker should have been seen more than ten times during the summer surveys, but only one of the more than 200 colonies that occur on the reservation was located on a plot.

TABLE 1. OCCURRENCE OF BIRDS ON LCTA PLOTS, FORT BENNING, GEORGIA, SUMMERS 1991, 1992.

Common Name	Recorded	Frequency
Great Blue Heron	1	0.0
Green-backed Heron	1	0.0
Turkey Vulture	7	0.3
Red-tailed Hawk	2	0.1
Red-shouldered Hawk	4	0.1
American Kestrel	2	0.1
Northern Bobwhite	78	2.9

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TABLE 1. Continued

Common Name	Recorded	Frequency
Wild Turkey	3	0.1
Killdeer	15	0.6
Rock Dove	18	0.7
Mourning Dove	60	2.3
Common Ground Dove	2	0.1
Yellow-billed Cuckoo	29	1.1
Barred Owl	3	0.1
Chuck-will's-widow	4	0.2
Common Nighthawk	5	0.2
Chimney Swift	18	0.7
Ruby-throated Hummingbird	1	0.0
Northern Flicker	5	0.2
Pileated Woodpecker	23	0.9
Red-bellied Woodpecker	88	3.3
Red-headed Woodpecker	17	0.6
Hairy Woodpecker	7	0.3
Downy Woodpecker	22	0.8
Red-cockaded Woodpecker	10	0.4
Eastern Kingbird	5	0.2
Great Crested Flycatcher	93	3.5
Acadian Flycatcher	35	1.3
Eastern Wood Pewee	30	1.1
Barn Swallow	7	0.3
Purple Martin	1	0.0
Blue Jay	66	2.5
American Crow	127	4.8
Fish Crow	5	0.2
Carolina Chickadee	67	2.5
Tufted Titmouse	148	5.6
White-breasted Nuthatch	10	0.4
Brown-headed Nuthatch	18	0.7
Carolina Wren	143	5.4
Northern Mockingbird	52	2.0
Gray Catbird	22	0.8
American Robin	2	0.2
Brown Thrasher	10	0.4
Wood Thrush	84	3.2
Eastern Bluebird	19	0.7
Blue-gray Gnatcatcher	43	1.6
European Starling	13	0.5
White-eyed Vireo	47	1.8
Yellow-throated Vireo	7	0.3
Solitary Vireo	1	0.0
Red-eyed Vireo	114	4.3
Black and White Warbler	1	0.0
Prothonotary Warbler	4	0.2
Northern Parula	6	0.2
Pine Warbler	161	6.1
Prairie Warbler	54	2.0
Louisiana Waterthrush	5	0.2
Kentucky Warbler	19	0.7
Common Yellowthroat	18	0.7
Yellow-breasted Chat	126	4.8
Hooded Warbler	37	1.4
Eastern Meadowlark	6	0.2
Red-winged Blackbird	2	0.1
Orchard Oriole	14	0.5
Common Grackle	13	0.5

TABLE 1. Continued

Common Name	Recorded	Frequency
Brown-headed Cowbird	18	0.7
Summer Tanager	52	2.0
Northern Cardinal	196	7.4
Blue Grosbeak	4	0.2
Indigo Bunting	84	3.2
American Goldfinch	4	0.2
Rufous-sided Towhee	185	7.0
Bachman's Sparrow	6	0.2
Chipping Sparrow	4	0.2
Field Sparrow	28	1.1
Song Sparrow	2	0.1
Totals 76 Species	2,647	100.0

TABLE 2. SPECIES OF BIRDS RECORDED ON FORT BENNING BUT NOT ON THE PLOTS.

Common Names	Common Names
Pied-billed Grebe*	Broad-winged Hawk
Double-crested Cormorant	Belted Kingfisher
Little Blue Heron	Eastern Phoebe
Great Egret	Rough-winged Swallow
Cattle Egret	Loggerhead Shrike
Blue-winged Teal*	Swainson's Warbler
Wood Duck	American Redstart
Ring-necked Duck*	House Finch
Black Vulture	House Sparrow

(* = winter record)

TABLE 3. BIRDS NOT RECORDED THAT OCCUR IN THE AREA IN SUMMER.

Common Names	Common Names
Pied-billed Grebe	Sharp-shinned Hawk
Double-crested Cormorant	Cooper's Hawk
Anhinga	King Rail
Least Bittern	Forster's Tern
White Ibis	E. Screech Owl
Mallard	Marsh Wren
Osprey	Yellow Warbler
Mississippi Kite	Yellow-throated Warbler

TABLE 4. OCCURRENCE OF BIRDS ON LCTA PLOTS, FORT BENNING, GEORGIA, WINTER 1992.

Common Names	Recorded	Frequency
Red-shouldered Hawk	1	0.1
Red-tailed Hawk	2	0.2
Mourning Dove	3	0.3
Barred Owl	1	0.1
Northern Flicker	4	0.4
Pileated Woodpecker	4	0.4
Red-bellied Woodpecker	27	2.9

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TABLE 4. Continued

Common Name	Recorded	Frequency
Red-headed Woodpecker	3	0.3
Yellow-bellied Sapsucker	3	0.3
Hairy Woodpecker	18	1.9
Downy Woodpecker	8	0.9
Red-cockaded Woodpecker	2	0.2
Eastern Phoebe	4	0.4
Blue Jay	9	1.0
American Crow	7	0.7
Carolina Chickadee	92	9.8
Tufted Titmouse	77	8.2
White-breasted Nuthatch	8	0.9
Red-breasted Nuthatch	6	0.6
Brown-headed Nuthatch	64	6.8
Brown Creeper	24	2.6
Carolina Wren	36	3.8
Northern Mockingbird	2	0.2
Gray Catbird	3	0.3
American Robin	16	1.7
Hermit Thrush	3	0.3
Eastern Bluebird	5	0.5
Golden-crowned Kinglet	122	13.0
Ruby-crowned Kinglet	49	5.2
Cedar Waxwing	11	1.2
Loggerhead Shrike	1	0.1
Yellow-rumped Warbler	45	4.8
Pine Warbler	22	2.3
Eastern Meadowlark	4	0.4
Northern Cardinal	18	1.9
American Goldfinch	1	0.1
Rufous-sided Towhee	33	3.5
Savannah Sparrow	4	0.4
Dark-eyed Junco	5	0.5
Chipping Sparrow	39	4.2
Field Sparrow	38	4.0
White-throated Sparrow	18	1.9
Fox Sparrow	2	0.2
Song Sparrow	95	10.0
Totals 44 Species	939	100.0

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