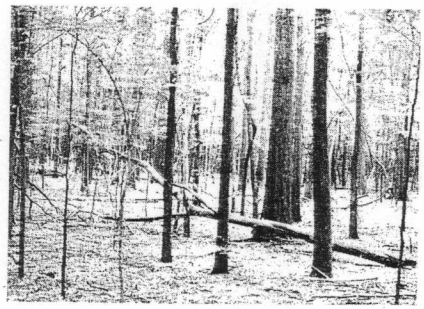
REP 1983-028

females (290/km², 117/100 acres). **Remarks:** Nests found: Whip-poor-will, Hairy Woodpecker. This census was a comparison study to Census 81. (Deciduous Clearcut). This plot is a relatively unchanging forested area maintained by the U.S. Forest Service. It closely represents the type of habitat that existed on the clearcut plot before it was cut and also the type of habitat the clearcut should succeed to eventually. Special thanks to Gary Lewis for assistance in measuring the plot and surveying the vegetation.—*RICHARD LEWIS, Rt. 3, Box 470, Bristol, TN 37620.*

48. MISSISSIPPI DELTA BOTTOMLAND HARDWOODS (MANAGED). — Location: Arkansas; Arkansas Co., White River Nat'l Ref., Timber Comp. 6; 1.2 mi SE St. Charles; 34°22'N, 91°7'W, Indian Bay SE Quadrangle, USGS. **Continuity:** New. **Size:** 10.9 ha = 26.9 acres (trapezoidal, measured with compass and "Hip Chain"). **Description of Plot:** The relatively even-aged canopy is dominated by Willow Oak *(Quercus phellos)*, Sugarberry *(Celtis laevigata)*, Green Ash *(Fraxinus pennsylvanica)*, Water Hickory *(Carya aquatica)*, Sweet Gum *(Liquidambar styraciflua)*, and E. Cottonwood *(Populus deltoides)*. Understory trees include smaller specimens of the canopy species as well as Am. Elm *(Ulmus americana)*, Possumhaw *(Ilex decidua)*, Ironwood *(Carpinus caroliniana)*, Red Mulberry *(Morus rubra)* and others. A few very large Bald Cypress *(Taxodium distichum)*, Willow Oak, Water Oak *(Q. nigra)* and Cherrybark Oak *(Q. falcata)* are widely scattered on the plot. River Birch *(Betula nigra)* and Black Willow *(Salix nigra)* occur along the river bank. Trumpet Creeper *(Campsis radicans)* is abundant. There are 2 small, relic Canebrakes *(Arundinaria gigantea)*. The ground is mostly bare of green vegetation but with small patches of Poison Ivy *(Toxicodendron radicans)* and *Galactia mohlenbrockii*. The forest was logged in the 1960s and 70s with removal of nearly all merchantable Com. Persimmon *(Diospyros virginiana)* and Pecan *(Carya illinoensis)*, and most of the Bald Cypress and Red Oaks. A quantitative survey of the vegetation gave the following results: Trees, 3 in. diameter and over, based on 10 0.1 acre circular samples, 361/acre; total basal area, 140.9 ft²/acre. Species comprising 90.7% of the total number of trees: Sugarberry, 76, 21, 7, 80; dead trees, 57, 16, 9, 90; Am. Elm, 54, 15, 6, 70; Willow Oak, 40, 11, 29, 90; Green Ash, 36, 10, 8, 70; Sweet Gum, 27, 8, 8, 60; Water Hickory and Pecan, 14, 4, 4, 60; Overcup Oak *(Q. lyrata)*, 14, 4, 6, 50; Honey Locust *(Gleditsia triacanthos)*, 9, 3, 3, 40. Trees by diameter size class: A (3-6 in.) 224, 62, 22, 16; B (6-9 in.) 75, 21, 23, 16; C (9-15 in.) 44, 12, 35, 26; D (15-21 in.) 10, 3, 18, 13; E (21-27 in.) 4, 1, 12, 9; F (27-33 in.) 2, 0.6, 10, 7; G (33-40 in.) 1, 0.3, 7, 5; H (52 in.) 1, 0.3, 14, 10. Shrub stems per acre, 775; canopy cover 81%; ground cover 43%; average canopy height 25 ft (range 15-50). **Edge:** Bounded by the White River on 1 side and similar habitat on the other 3 sides with a 2-yr old field approaching 1 corner. **Topography:** Ridge and swale, and sloping gradually in 1 corner into an area about 1-2 ft lower in elevation, frequently containing standing water. A small semi-permanent slough stagnates during low water. **Elevation:** 150-155 ft (45-47 m). **Weather:** Normal for the period. **Coverage:** May 22-24, 28, 30-31; June 1, 3, 7, 9, 14, 18, 21, 23; Sunrise—1000 and 1700-2200. Total man-hours: 26.5. **Census:** Blue-gray Gnatcatcher, 21 (193, 78); Carolina Chickadee, 10 (92, 37); Acadian Flycatcher, 8 (73, 30); Carolina Wren, 6.5 (60, 24); Red-eyed Vireo, 6 (55, 22); Brown-headed Cowbird, 6; Cardinal, 5.5 (51, 20); Ruby-throated Hummingbird, 5 (46, 19); Downy Woodpecker, 5; Tufted Titmouse, 5; Prothonotary Warbler, 5; Yellow-billed Cuckoo, 4.5 (41, 17); N. Parula, 4 (37, 15); Blue Jay, 3 (28, 11); Indigo Bunting, 2.5; Red-bellied Woodpecker, 2; Great Crested Flycatcher, 1.5; White-eyed Vireo, 1.5; Orchard Oriole, 1.5; Broad-winged Hawk, 1; Turkey, 1; Barred Owl, 1;



BBC 48, White River N.W.R., Arkansas Co., Ark. Mississippi Delta Bottomlands (Managed). Photo/Steven P. Christman.

Com. Flicker, 1; Pileated Woodpecker, 1; Summer Tanager, 1; Wood Duck, +; Red-tailed Hawk, +; Wood Thrush, +. **Total:** 28 species; 109.5 territorial males (1006/km², 407/100 acres). **Visitors:** Great Horned Owl, Red-headed Woodpecker, Hairy Woodpecker, E. Wood Pewee, Yellow-throated Vireo, Kentucky Warbler, Com. Yellowthroat, Com. Grackle. **Remarks:** Nests located (1 each): Yellow-billed Cuckoo, Acadian Flycatcher.—*STEVEN P. CHRISTMAN, Denver Wildlife Research Center, 412 NE 16th Ave., Gainesville, FL 32601.*

49. MISSISSIPPI DELTA BOTTOMLAND HARDWOODS (UNMANAGED). — Location: Arkansas; Arkansas Co., White River Nat'l Wildl. Ref., Striplin Woods; 0.7 mi SE St. Charles; 34°22'N, 91°7'W, Indian Bay SE Quadrangle, USGS. **Continuity:** New. **Size:** 9.7 ha = 24.0 acres (trapezoidal; measured with compass and "Hip Chain"). **Description of Plot:** The uneven-aged canopy is dominated by widely-spaced large specimens of Overcup Oak *(Quercus lyrata)*, Nuttall Oak *(Q. nuttallii)*, Swamp Chestnut Oak *(Q. michauxii)*, Willow Oak *(Q. phellos)*, Pecan *(Carya illinoiensis)*, and Sycamore *(Platanus occidentalis)*. Large Com. Persimmon *(Diospyros virginiana)*, Cedar Elm *(Ulmus crassifolia)*, E. Cottonwood *(Populus deltoides)*, Honey Locust *(Gleditsia triacanthos)*, Sweet Gum *(Liquidambar styraciflua)*, and Bald Cypress *(Taxodium distichum)* also contribute to the canopy. River Birch *(Betula nigra)* and large Black Willow *(Salix nigra)* occur along the river bank. Numerous natural tree falls and large dead trees create thickety openings dominated by Trumpet Creeper *(Campsis radicans)*, Grape *(Vitis* sp.), Pepper-vine *(Ampelopsis arborea)*, blackberry (*Rubus* sp.) and small trees of several species. The understory includes Silver Maple *(Acer saccharinum)*, Sugarberry *(Celtis laevigata)*, Red Mulberry *(Morus rubra)*, Am. Elm *(Ulmus americana)*, Possumhaw *(Ilex decidua)*, *Sassafras albidum*, and others. Trumpet Creeper, Supplejack *(Berchemia scandens)*, Peppervine, Greenbriar (*Smilax* sp.), Grape and Poison Ivy *(Toxicodendron radicans)* are everywhere in abundance. A relic Canebrake *(Arundinaria gigantea)* persists in 1 corner. The ground is sometimes bare of living vegetation, but often is covered with Poison Ivy sometimes standing to a height of 1 m. The forest has not been logged since the beginning of the century. A quantitative survey of the vegetation gave the following results: Trees, 3 in. diameter and over, based on 10 0.1 acre circular samples, 194/acre; total basal area, 138.5 ft²/acre. Species comprising 90.2% of the total number of trees: Am. Elm, 39, 20, 6, 60; Sweet Gum, 31, 16, 5, 50; dead trees, 21, 11, 11, 80; Sugarberry 18, 9, 2, 60; Com. Persimmon, 15, 8, 9, 40; Overcup Oak, 14, 7, 26, 40; Pecan and Water Hickory, 10, 5, 4, 50; Cedar Elm, 9, 5, 5, 30; Silver Maple, 6, 3, 0.6, 30; Water Oak *(Q. nigra)*, 6, 3, 3, 40; Willow Oak, 6, 3, 10, 40. Trees by diameter size class: A (3-6 in.) 101, 52, 10, 7; B (6-9 in.) 33, 17, 10, 7; C (9-15 in.) 30, 16, 24, 17; D (15-21 in.) 15, 8, 27, 20; E (21-27 in.) 10, 5, 31, 22; F (27-33 in.) 2, 1, 10, 7; G (33-40 in.) 2, 1, 14, 10; H (50 in.) 1, 0.5, 13, 9. Shrub stems per acre, 2520; canopy cover 74%; ground cover 49%; average canopy height 57 ft (range 30-80). **Edge:** Bounded by the White River on 1 side, 50-100 m of similar habitat then a terrace on 1 side, 70 m of similar habitat then a dirt road and highway bridge on 1 side, and similar habitat on the remaining side, with a 2-yr old field abutting the corner. **Topography:** Ridge and swale with a small, semi-permanent slough. **Elevation:** 151-155 ft (46-47 m). **Weather:** Normal for the period. **Coverage:** May 26, 30-31; June 1-2, 4-6, 8, 11, 17-18, 21, 23; Sunrise-1000 and 1500-2200. Total man-hours: 30.5 **Census:** Blue-gray Gnatcatcher, 28 (288, 117); Carolina Chickadee, 8 (82, 33); Acadian Flycatcher, 7.5 (77, 31); N. Parula, 7 (72, 29); Ruby-throated Hummingbird, 6 (62, 25); Carolina Wren, 5 (51, 21); Brown-headed Cowbird, 5; Cardinal, 5; Tufted Titmouse, 4 (41, 17); Yellow-billed Cuckoo, 3 (31, 13); Red-bellied Woodpecker, 3; White-eyed Vireo, 3; Downy Woodpecker, 2.5; Prothonotary Warbler, 2.5; Kentucky Warbler, 2.5; Pileated Woodpecker, 2; Great Crested Flycatcher, 2; Wood Thrush, 2; Indigo Bunting, 2; Wood Duck, 1; Mississippi Kite, 1; Red-headed Woodpecker, 1; Hairy Woodpecker, 1; E. Wood Pewee, 1; Blue Jay, 1; Red-eyed Vireo, 1; Swainson's Warbler, 1; Orchard Oriole, 1; Yellow-breasted Chat, +. **Total:** 29 species; 109 territorial males (1122/km², 454/100 acres). **Visitors:** Yellow-crowned Night Heron, Barred Owl, Chimney Swift, Com. Flicker, White-breasted Nuthatch, Yellow-throated Vireo, Am. Redstart, Summer Tanager, Com. Grackle. **Remarks:** Nests located (1 each): Ruby-throated Hummingbird, Red-headed Woodpecker, Wood Thrush, Cardinal. Blue-gray Gnatcatchers observed feeding fledgling cowbirds on 4 occasions.—*STEVEN P. CHRISTMAN, Den-*