



Oak Ridge Reservation


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Location: Oak Ridge, including the Oak Ridge Wildlife Management Area, the Three Bend Scenic and Wildlife Management Refuge Area, and the Black Oak Ridge Conservation Easement (BORCE), in the counties of Anderson and Roane, Tennessee.

Physiographic Province: PIF 13 (Southern Ridge and Valley); BCR 28 (Appalachian Mountains)



Geographical Coordinates:

Oak Ridge--Lat. 360037N Long. 0841611W

Freels Bend--Lat. 355710N Long. 841321W

Elevation Range: 800' - 1200'

850' Oak Ridge

938' Freels Bend

Size: 33,750 acres

USGS 7.5' quads: Lovell, Windrock, others

Description: The Oak Ridge Reservation (ORR) borders on Melton Hill Lake and the Clinch River and is traversed by the East Fork Poplar Creek and Bear Creek. Land cover consists of the following: Urban [Department of Energy (DOE) facilities and roads] 3,550 acres (10%); Transitional lands--old fields, pastures, utility ROWs, roadsides 6,750 acres (20%); and Forested lands 23,600 acres (70%), consisting of the following types--a) Mature upland deciduous forest, principally oak-hickory 9,850 acres (29%); b) Mixed pine-deciduous forest, principally shortleaf pine-oak hickory 8,500 acres (25%); c) Beetle-killed pine forests, now successional scrub 3,250 acres (10%); d) Pine forests and plantations, Loblolly Pine and Virginia Pine 2,000 acres (6%); and e) Barrens 47 acres (<1%) (Washington-Allen et al. 1995).

IBA Criteria: 3, 4f



Photo by R. K. McConathy

Osprey on its nest in the Clinch River.

Ornithological Importance: The Oak Ridge Reservation has large expanses of mature hardwood forest, unbroken by development or farmland; brushy corridors and cutover forest; abandoned pastures; grasslands; cedar glades and barrens; and wetlands. These habitats makes the ORR attractive to a large and diverse number of species. Nearly 200 species have been documented. In Need of Management species observed include:

Bald Eagle: A few birds are seen in winter, but there are no nesting records.

Sharp-shinned Hawk: Seen regularly crossing the roads on the bi-monthly and monthly goose observation surveys. No number is available and no nest has been documented but birds are present during the breeding season (James Evans, Kelly Roy).

Olive-sided Flycatcher: A few are seen mainly during fall migration.

Golden-winged Warbler: A few are seen the spring and fall migration periods.

Cerulean Warbler: Recent sightings are June 5 (1) and July 18 (1), 1999; June 1,

2000 (1); and May 27 into July (1 male), 2002.

Hispaniolan Sparrow: Has been observed only occasionally during the fall. It is too recent from the planting of native warm



Photo by R. K. McConathy

The Clinch River borders the Oak Ridge Reservation and provides habitat for many plant and animal species.

season grasses to attract this expanding species (in the south), but the possibility exists for them in the future (James Evans).

Note 1. Forested areas present significant sites for migrating and breeding woodland neotropicals. Out of 27 species determined to be of top conservation priority in the region by Partners in Flight, 23 species are present on the reservation during the breeding season. These and other neo-tropicals breeding include Yellow-billed Cuckoo (860), Chuck-will's-widow (25), Eastern Wood-Pewee, Acadian Flycatcher (320), Yellow-throated Vireo (90), Brown-headed Nuthatch (10?), Wood Thrush (1250), Yellow-throated Warbler (115), Prothonotary Warbler (20), Worm-eating Warbler (85), Louisiana Waterthrush, Kentucky Warbler (115), and Summer Tanager.

The brushy areas, and cedar glades and barrens on the reservation have become limited elsewhere because of the replacement of native warm-season grasses, such as Big Bluestem, Little Bluestem, Indian Grass, and Broomsedge, with non-native pasture grasses such as fescue. Cedar glades and barrens are becoming rare habitats, but on the ORR they are relatively abundant on exposed limestone in small, drought-prone forest openings. Of special note is the Three Bend Scenic and Wildlife Refuge designated to preserve some of the reservation's unique habitats and wildlife. This 3,000-acre area with three peninsulas (20 miles of Melton Hill Lake shoreline) is being managed and protected through a cooperative arrangement between the Department Of Energy and the Tennessee Wildlife Resources Agency. Also, the Black Oak Ridge Conservation Easement (BORCE), a 3,000-acre tract on the ORR that the Department of Energy has set aside for wildlife conservation under an agreement with the State of Tennessee. Some species associated with these habitats include Willow Flycatcher (19), Prairie Warbler (700), Yellow-breasted Chat (980), and Field Sparrow (450). Numbers based on 6-8 years of breeding bird point counts taken along 10-point count routes covering 159 points along 30 miles crisscrossing reservation. Calculations of numbers of breeding birds assumes each counted bird represents a pair of birds per 21.8 acres (circle with radius of 0.20 miles [1,100 feet between points] = 21.8 acres). Numbers based on average numbers counted during period and assumption that point count routes represent the 90% of 33,750 acres that are covered by forests or transitional lands.

Site Criteria	Species/ Group	Season ¹	Avg. No Season	Max. No. Season	Years of Data	Source ²
3, 4f	Habitat: Natural and Species Assemblages (See Note 1 above.	B			1995-2002	4, 6, 7a, 7b

Season¹ B = Breeding, W = Wintering, SM = Spring Migration, FM = Fall Migration

Source² 1-Atlas Breeding Birds of Tennessee 2-Breeding Bird Surveys 3-Christmas Bird Counts

4-Point Counts--Oak Ridge Wildlife Management Area 5-Refuge Counts

6-Personal observations (John Devereux Joslin and associates)7-Other (a-The Migrant 1997-2003, b-Mann et al).

Ownership: U. S. Department of Energy

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Conservation Concerns: **Major** concerns include introduced plants and animals, succession, fragmentation, and parasitism by cowbirds. **Potential** concerns include natural pests/disease, commercial development, residential development, recreational development/overuse, deforestation, and forestation.

Management Program: There is a wildlife management plan for the Oak Ridge Reservation, the Three Bend Scenic and Wildlife Refuge, and the Black Oak Ridge Conservation Easement (BORCE) that birds are mentioned generally and specially (James Evans). There is also a [native grassland community management plan](#).

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References:

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[Roy, W. K., J. W. Evans, and M. G. Ryon. 2001. The Red-headed Woodpecker and Brown-headed Nuthatch on the Oak Ridge Reservation: Relationship to recent landscape changes. Migrant 72:1-12.](#)

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TN. ES/ER/TM-152. Modified and updated by information from Pat Parr, 2004, personal communication.

Approved as an IBA site: December 2005--Yes 7 No 0

This page was last updated on 02/19/06.