

Rare Wildlife of the Oak Ridge Reservation



Great egrets, state listed as in need of management, are occasionally seen near streams and ponds on the ORR.

More than 30 rare animal species can be found on the Department of Energy's (DOE's) Oak Ridge Reservation (ORR)—some are full-time residents, while others are transient. Species are considered to be rare when they have low population numbers or limited distribution, making them susceptible to extinction. The state and federal governments categorize the rarest animal species as endangered, threatened, or in need of management.

The ORR, acquired by the federal government in 1942 as part of the Manhattan Project, has escaped the development that has gone on around it. This unplanned conservation effort has preserved important, largely unfragmented habitat for many rare animals that have disappeared from elsewhere in east Tennessee.

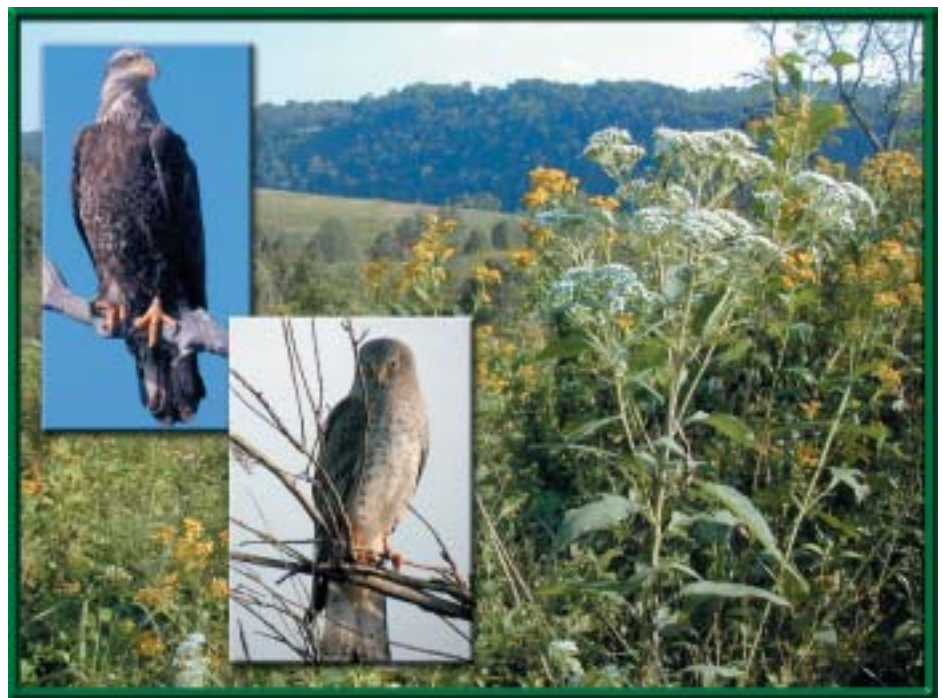
Most of the rare wildlife found on the ORR are birds, but they also include the Tennessee dace (a fish), the four-toed salamander, and two mammals. The bald eagle, gray bat, and peregrine falcon are the only animals state or federally listed as threatened or endangered. The bald eagle is seen increasingly in winter and may nest on the ORR in the future. The gray bat is transient on the ORR, but as this species continues to recover, it may take up full-time residence.

Rare Animals List

The list of rare species on the ORR changes over time. Detailed investigations in unsurveyed areas often locate rare animals not previously known to occur on the reservation. Historical records mention species that have not been seen in recent years. The flame chub, for example, was reported in Bear Creek in the 1930s, but it has not been found recently.

Listed animals found on adjacent lands may also be present on the ORR. The spotfin chub, a fish listed as federally and state threatened, has been found in East Fork Poplar Creek which flows through the ORR. Habitat for chubs—larger streams with boulder substrates—occurs on the ORR, so the fish is likely to occur there, too.

The Three Bend Scenic and Wildlife Refuge is a specially protected conservation area managed by the Tennessee Wildlife Resources Agency for DOE. It provides habitats for regionally, nationally, or globally unique, rare, or endangered animal species and communities. Some of the rare birds seen on the refuge include the bald eagle, left, and the northern harrier. (Background photo © R.K. McConathy, bird photos by George Jameson)



Migratory species do not return every year. Bachman's sparrow, a Tennessee endangered species, was observed in the past on the ORR, but it has not been seen in recent years, even though suitable habitat exists in several areas.

Some areas that have supported rare species have been substantially altered since the species were originally located. Bewick's wren, a Tennessee endangered species, appears to have disappeared from the reservation because there is no longer suitable habitat for it.

The state and federal rare species lists change. A number of species, including osprey, grasshopper sparrow, Cooper's hawk, sandhill crane, and double-crested cormorant, have recently been removed from the state list. The golden-winged warbler has been recently added to the state list as in need of management.

Locating Rare Animals

Surveys for rare animals must be done during the time of year each species is most likely to be encountered. Some birds can be observed only as they migrate through the ORR; other species are most easily located during their breeding season.

Protecting Rare Animals

Developing and implementing management plans for rare species assists in their conservation. The best way to ensure the long-term survival of rare species is to protect their natural habitats. Thus, the identification and protection of potential habitat, especially where rare animals have been found, is an important aspect of their management.

Wetlands on the ORR are the habitats that are most likely to provide homes for rare reptiles, amphibians, and mammals. Grasslands, caves, and mature forests are also of special interest because they provide unique habitat for some species.

Many sites on the ORR where rare animal species or populations occur have been designated as natural areas. Several designated aquatic natural areas provide habitat for the Tennessee dace. Although these natural areas are not large, they help preserve populations of rare animals.



Hembree Marsh provides habitat for some rare aquatic and terrestrial animal species, including the four-toed salamander. (Background photo © R.K. McConathy, salamander photo from Nova Scotia Museum of Natural History web site, <http://museum.gov.ns.ca/mnh>).



This spotfin chub was found in East Fork Poplar Creek just outside the ORR. Although not yet observed on the ORR, the species is likely to occur there.

In addition to habitat preservation, good forest management and field maintenance help maintain and enhance habitats for rare animals on the ORR. Forest management includes selective thinning of hardwood trees (a past practice that could be done again), minimizing and eliminating nonnative species such as autumn olive or tree of heaven, and burning some areas. A program to restore native grass communities on the ORR is also helping native wildlife.

For more detailed information on rare wildlife on the Oak Ridge National Environmental Research Park, contact Pat Parr, the Oak Ridge National Laboratory Area Manager, at 865-576-8123, parrpd@ornl.gov; or check the Research Park web site at <http://www.esd.ornl.gov/facilities/nerp/rarewildlifelist.pdf> for a list of rare animals recently sighted on the reservation.