

Barton Creek Conservation Update Executive Summary

The Barton Creek Habitat Preserve is located within the Edwards Plateau ecoregion in Central Texas, on the western edge of the rapidly expanding Austin metropolitan area. The preserve and surrounding lands are characterized by gently rolling hills grading into canyon slopes along the course of Barton Creek. The 1,650-hectare (4,084-acre) preserve is an island of nesting habitat for two endangered neotropical migrant songbirds, the golden-cheeked warbler and black-capped vireo. The preserve was established with mitigation monies provided by Davenport, Ltd., *a.k.a.* FM Properties, under a Section 10(a)(1)(B) permit of the Endangered Species Act. Agreements between FM Properties, The Nature Conservancy and the U.S. Fish and Wildlife Service require that Barton Creek Habitat Preserve be managed to provide golden-cheeked warbler and black-capped vireo habitat.

Figure 1. Golden-cheeked warbler

Photo courtesy of Bob Thornton



Of the nearly 600 bird species found in the state, only the golden-cheeked warbler (Figure 1) breeds exclusively in Texas--which means every golden-cheeked warbler is a native Texan. Junipers (“cedars”) at least 30 years old are an essential habitat component. Golden-cheeked warblers use a variety of trees and shrubs for feeding and other activities but use only bark strips from old junipers to build their nests. As

Texas’s mature oak-juniper woodlands have become increasingly rare and fragmented, so too has the warbler population declined. Oak-juniper woodlands at the preserve support about 60 nesting pairs each spring. Management at the preserve centers on increasing and enhancing available habitat for these birds, with the ultimate goal of supporting about 100 pairs. Although the preserve is too small to serve as a major population source for these birds, it is hoped that birds born here will contribute to the larger population.

Figure 2. Black-capped vireo

Unlike the warbler, which prefers older forests and dense tree cover, the black-capped vireo (Figure 2) nests in clumps of low, shrubs scattered across fairly open grasslands. When the Conservancy acquired the preserve in 1994, little such habitat still existed here. Historic fire suppression and heavy livestock grazing are suspected of having facilitated excessive shrub and tree encroachment in former vireo habitat; however, restoration efforts have already made a visible difference in the amount and quality of available habitat. Biologists monitor annually to detect the return



Photo courtesy of Lvnn McBride

of vireos. In 2002, one lone bird was sighted, and in 2003, one breeding pair was found. The Conservancy hopes to eventually see between 41 and 80 nesting pairs on the preserve.

Barton Creek itself flows through important riparian forests with rare plants like gravelbar brickellbush. A fish endemic to the Edwards Plateau, the Guadalupe bass, has been found on the preserve as well. Finally, the creek contributes to the water quality and recharge of the Edwards Aquifer and Barton Springs downstream. Barton Springs is home to an endangered endemic species, the Barton Springs salamander. Preserving the viability and quality of Barton Creek is critical to the protection of the ecosystem at the Barton Creek Habitat Preserve and beyond the preserve boundaries.

In addition to conservation of imperiled birds, the preserve is used extensively for outreach and education. Its location near Austin makes this a prime spot for connecting with people and teaching them the value of preserving native Hill Country habitats. Education and outreach at the preserve falls into three categories: service learning, research, and educational programs led by partner organizations. While Austin has numerous environmental education opportunities, these three areas were considered some for which capacity could be expanded, and thus a useful niche for the Conservancy to help fill. In 2003, an education coordinator position was established to build these three program areas. With the help of the education coordinator, individuals and groups help with preserve improvement and maintenance, biological monitoring, and habitat restoration. Also, many educational programs are led by partner organizations which use the preserve as an outdoor classroom, and scientific studies are underway, with more planned each year.