


# Baker Sanctuary

## 2009 Annual Report

(January-October 2009)

*prepared for the*

## Balcones Canyonlands Preserve

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## Introduction

Baker Sanctuary is owned by Travis Audubon Society with approximately 682 acres managed as part of the Balcones Canyonlands Preserve (BCP). Approximately nine additional acres along the northwest boundary were purchased by Travis Audubon in 2007 and have not been added to the BCP. Straddling Lime Creek Road, the sanctuary is within the Cypress Creek Macrosite and adjacent to several other BCP tracts including: the City of Austin's Austin Simon and Lime Creek tracts to the north; and the Lower Colorado River Authority's Wheless tract, The Nature Conservancy's Lehmann tract, and the City of Cedar Park's waterline tract to the south. A recent BCP purchase by Travis County touches the sanctuary's western boundary. The sanctuary features densely wooded uplands, slopes and canyons dominated by mature oak-juniper woodlands with occasional pockets of open and semi-open grasslands that are being invaded by juniper.

## Golden-cheeked Warbler Survey

Golden-cheeked warblers tend to flourish throughout much of Baker. The 100-acre plot in the southern half of the sanctuary was surveyed in the spring. Some of the numbers were lower this year than last, with 14 in-plot males, four edge-of-plot males, six females, and seven fledglings in four territories (see Appendix B for the report).

## Deer Management

The Sanctuary opened on January 31, 2009. The Sanctuary was closed on October 24th, 2008 for the annual white-tailed deer harvest. There were a total of 8 hunters on Baker Sanctuary for the 2008 - 2009 white-tailed deer season: Doran Bradberry, Fred Helms, Kevin Connally, Parish Shelly, Robert Weise, Stacy Harding, Marcie Wilcox and John Wilcox. A total of 18 deer were harvested during the 2008 – 2009 season; nine does, three spikes, and six bucks. The Sanctuary closed for the annual deer harvest again on October 24th, 2009.

The "Hatfield" Tract is a 50 acre tract deeded to the Travis Audubon in 1986 with the following stipulation: "it will never lease any portion of the property for hunting or trapping purposes"; as a result, no hunting took place on this tract during the 2008 – 2009 hunting season. Hunting lease sites #8 and #9 were closed on a permanent basis in October 2009 at the advice of the hunting coordinator, Doran Bradbury, because of their location to the steward's headquarters.

## Vegetation Management

The Baker Sanctuary steward, with the support of the Sanctuary Committee, will conduct a habitat assessment for the Baker Sanctuary in 2010. The purpose of this habitat assessment is to develop a comprehensive vegetation management plan to better maintain golden-cheeked warbler habitat integrity and preserve habitat diversity. The assessment will evaluate and document existing golden-cheeked warbler habitat suitability and habitat restoration needs. The primary goals are to protect, maintain and enhance existing suitable habitat and improve and restore degraded habitats; this includes protecting the native prairie species and preserving the semi-open grasslands, as described in Tier III of the land management plan for Baker Sanctuary.

Baker Sanctuary is composed mainly of dense mature oak-juniper woodlands interspersed with pockets of open and semi-open grasslands; there are nine Fire Behavior Prediction System (FBPS) fuel models that correspond with the habitats within Balcones Canyonland Preserve and a fire management plan based upon these prediction systems is located in the Baker Sanctuary headquarters and available to assist the steward in monitoring for fire safety and response readiness. The Baker Sanctuary is also equipped with a wildfire calldown list and basic wildfire response tools to help better expedite early response to wildfires. On April 9th, a grass fire, most likely caused by a dry lightning strike, burned approximately seven acres of the Ruth Fredericksen Tract. The wildfire was quickly dispatched by firefighters from North Lake Travis Fire and Rescue, US Fish and Wildlife Service and Cedar Park. The quick response to the wildfire demonstrates the effectiveness of the Baker Sanctuary wildfire management plan.

## Cowbird Trapping

John Wilcox had difficulty in obtaining BHCO decoys so he began the BHCO trapping season on April 11 with five BHCO decoys (three males and two females) donated by the City of Austin BCP staff in Trap #1 (since John Wilcox left the position of Land Steward in late May, he never opened Trap #2). Because John Wilcox left the sanctuary in late May he shut down Trap #1 on May 6th and captured a total of five male and 14 female BHCOs. Less initial decoy stock, Mr. Wilcox trapped a total of 14 BHCOs. Mr. Wilcox had no non-target captures and no non-target fatalities.

## Exotics Control

- Sanctuary steward Mike Powers recorded several sightings of feral hogs during the summer of 2009; no feral hogs were trapped.

- Volunteer Galen Herz and Mike Powers removed two chinaberry trees, approximately 12 feet tall, located in the Fredericksen tract.
- Volunteers Scott Lenharth and Rachel Cable installed native grasses in a plot immediately west of the residence and removed 50 Johnson grass plants from residence landscape.

**Research**

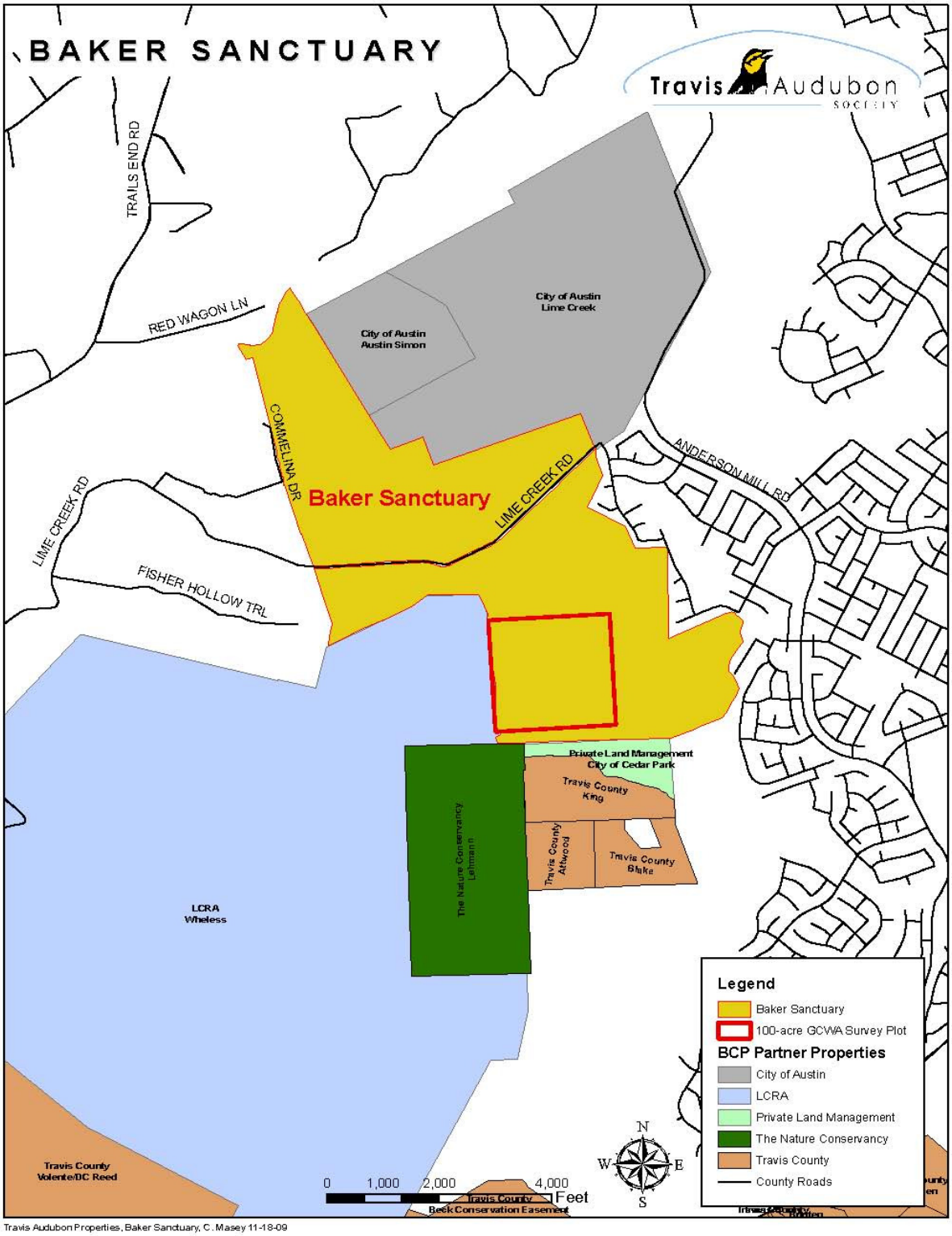
No research was done at Baker Sanctuary during 2009; because of unusually dry conditions this summer, Baker springs was dry each time a salamander survey was scheduled.

**Education and Outreach**

- February 14th - the Baker Sanctuary held a workday to line-trim the Blue Trail prior to the annual Open House scheduled for April 4th.
- March 14th - the Baker Sanctuary hosted a BCP Hike led by Cindy Sperry and Bill Reiner for ten guests.
- March 15th - the JAEC at the Baker Sanctuary hosted a commercial event led by Shelia Hargis and Laurie Foss for five participants.
- March 24th - Marcie Wilcox and John Wilcox helped Nancy Manning give a program to 24 people about the TAS Baker Sanctuary to the Ranch at Deer Creek Home Owners Association. Kevin Connally with Travis County also was present at this meeting and talked about the Balcones Canyonlands Conservation Plan and the BCP Preserve system.
- April 4th - the JAEC at the Baker Sanctuary hosted the annual Open House from 9:00 AM until noon. In all, 100 people attended.
- April 11th - the JAEC hosted the CAMN Introduction to Insects and Spider Class. In all 37 people attended, including instructors.
- April 24th and 25th - the Baker Sanctuary hosted three field trips for TOS members. In all, five guides showed 31 people GCWAs.
- September 9th – Sanctuary steward Mike Powers provided and evening interpretive tour on North Trail for Boy Scout group organized by TAS member Debbie Krakar.
- October 10th - Sanctuary steward Mike Powers assisted Cindy Sperry with BCP guided tour for eight guests on North Trail.
- TAS-BS 2009 Season – in all, during the 2009 visitor season, the Sanctuary had 367 visitors, including those visitors that attended special events. The number of visitors that signed in at the Registration Box was 177; of these visitors, 96 were TAS members, and 81 were non members.
- Special Events – The BCP hike on March 14th attracted 10 visitors; the Hargis/Foss community event attracted seven visitors; the annual open house attracted 100 visitors; the CAMN training event attracted 37 visitors; and the two TOS field trips attracted 36 visitors.

Appendix A

**Map of Baker Sanctuary and BCP partner properties**




Travis Audubon Properties, Baker Sanctuary, C. Masey 11-18-09

Appendix B

**Results of the Golden-cheeked Warbler Survey**
**for the Baker Sanctuary 100-acre Plot**
**Spring 2009**

by Cindy Sperry, M.S.

Dawn Houston and I conducted the 2009 Golden-cheeked Warbler survey for Travis Audubon Society's Baker Sanctuary 100-acre plot. Beginning on March 22 and ending June 2, we surveyed the full plot 9 times during 11 visits for a total survey time of 56 hours and 47 minutes. Ms. Houston conducted surveys on March 22, April 5, April 19, and May 2. I conducted surveys on March 28, May 9, May 16, May 17, May 23, May 31, and June 2. The 7th survey, which was started on May 16, was terminated early due to rain and completed on May 17. The 9th survey, begun on May 31, was terminated early due to presence of a stray dog in the plot. That survey was completed on June 2.

All surveys were conducted following the protocol outlined in the Balcones Canyonland Preserve (BCP) Land Manager's Handbook. Locations of individual Golden-cheeked Warblers were mapped by hand in the field and GPS coordinates were obtained whenever possible. Movements and counter-singing by males were documented and used to distinguish individuals and identify territory boundaries. Observations of females and fledglings were also documented. Ms. Houston and I compiled and jointly analyzed all survey observations to obtain an estimate of established male territories within and immediately adjacent to the survey plot.

Based on compiled observations, including patterns of movement, counter-singing and the presence of females and fledglings, Ms. Houston and I estimate that at least fourteen Golden-cheeked Warbler males established territories substantially within plot boundaries, and another four occupied territories partially within or immediately adjacent to the plot (edge territories). We feel these estimates are conservative as it is possible that, in one or more instances, we may have grouped two males into a single territory. We believe that it is preferable to risk erroneously counting two males as one, rather than assume separate identities in the absence of counter-singing or other clear evidence. These results are similar to last year's estimate of fourteen in-plot territories and seven edge territories.

We had significantly fewer observations of females (six) and fledglings (seven in four territories) this year compared to 2008 (ten females and sixteen fledglings in ten territories). Females were relatively abundant on March 28, but disappeared from view after April19. Fledglings were detected only on three surveys during May. Females are always difficult to detect but some are usually observed tending fledglings later in the season. This year we saw

no females attending fledglings. Several other survey sites in Travis County reported low fledgling numbers this year, particularly in the northwestern end of Travis County. Possible causes for reduced fledgling numbers include the continuing drought and its effect on insect availability, and the severe hail storm that hit the area in early April. **Table 1** summarizes male, female and fledgling detections for each survey date.

**Figure 1** displays locations of all Golden-cheeked Warbler observations and estimated territory boundaries for 2009. Each number on the map represents an observation of an adult male Golden-cheeked Warbler made on the survey of that number (e.g. a "3" indicates location of an observation made on the 3rd survey). Solid lines connecting numbers indicate an individual bird's movement, while dotted lines indicate counter-singing between two males. Females are noted with the symbol '♀' and fledglings by the letter 'f '. Polygons surrounding the observations represent approximate boundaries of male territories; with each territory identified by a letter. **Table 2** lists female and fledgling observations by territory identification letter.

**Table 3** lists the 45 bird species detected in or near the 100-acre plot during 2009 surveys. In addition to Golden-cheeked Warblers, species detected on most surveys include Carolina Chickadee, Black-crested Titmouse, Northern Cardinal, Mourning Dove, Blue-gray Gnatcatcher, White-eyed Vireo, Bewick's Wren, and Black-and-white Warbler. Passing migrants included Tennessee Warbler, American Redstart, Nashville Warbler, and Yellow-breasted Chat. Commonly seen birds presumed to be nesting in or near the plot included the Painted Bunting, Lesser Goldfinch, Yellow-billed Cuckoo, Western Scrub-jay, and Ladder-backed Woodpecker. Brown-headed Cowbirds were observed in the plot during two surveys but we found no evidence of nest parasitism on Golden-cheeked Warblers. On May 17, I flushed a Chuck-will's-widow from a mid-plot trail and found its newly-hatched chick huddled next to its sibling egg among the leaf litter (**Figure 2**). The same day I flushed two separately-roosting Common Nighthawks, the first I have seen at Baker during my four years of surveying this plot.

Mammals seen or heard in the survey plot included the eastern fox squirrel, coyote (Dawn spotted one on April 19), and black-tailed jackrabbit. Only one unidentified snake was seen along with a number of unidentified lizards. On May 23 I found a three-toed box turtle (*Terrapene carolina triunguis*) (**Figure 3**), another first for me during a Baker survey.

**Table 1.** Summary of males, females, and fledglings detected within the Baker 100-acre plot and along plot edges on each survey date and final territory estimates, Spring 2009.

| | | In plot | | | Edge of plot | | |
|---|---|---|---|---|---|---|---|
| **Date** | **Survey time** | **Males** | **Females** | **Fledglings** | **Males** | **Females** | **Fledglings** |
| 3/22/09 | 7:02 am – 12:20 pm | 9 | | | | | |
| 3/28/09 | 7:45 am – 1:20 pm | 7 | 4 | | | | |
| 4/5/09 | 7:30 am – 1:30 pm | 5 | 1 | | 2 | | |
| 4/19/09 | 7:30 am – 1:30 pm | 8 | 1 | | 4 | | |
| 5/2/09 | 7:35 am – 1:35 pm | 9 | | 1 | 3 | | |
| 5/9/09 | 7:16 am – 2:17 pm | 14 | | | 3 | | |
| 5/16/09 | 7:12 am – 10:30 am | 4 | | 3 | 4 | | |
| 5/17/09 | 8:00 am – 12:38 pm | 6 | | | 1 | | |
| 5/23/09 | 7:18 am – 2:00 pm | 11 | | 3 | 1 | | |
| 5/31/09 | 7:10 am – 10:30 am | 4 | | | 2 | | |
| 6/2/09 | 7:16 am – 10:11 am | 3 | | | 1 | | |
| **FINAL** | | 14 | 6 | 7 | 4 | | |

**Table 2.** Golden-cheeked Warbler territories for which females and/or fledglings were detected during the Golden-cheeked Warbler surveys, Spring 2009.

| Territory ID | Female detected? | Number of fledglings detected |
|---|---|---|
| A | yes | - |
| B | no | 3 |
| C | yes | - |
| D | yes | - |
| G | yes | 1 |
| K | yes | - |
| N | yes | 1 |
| O | no | 2 |

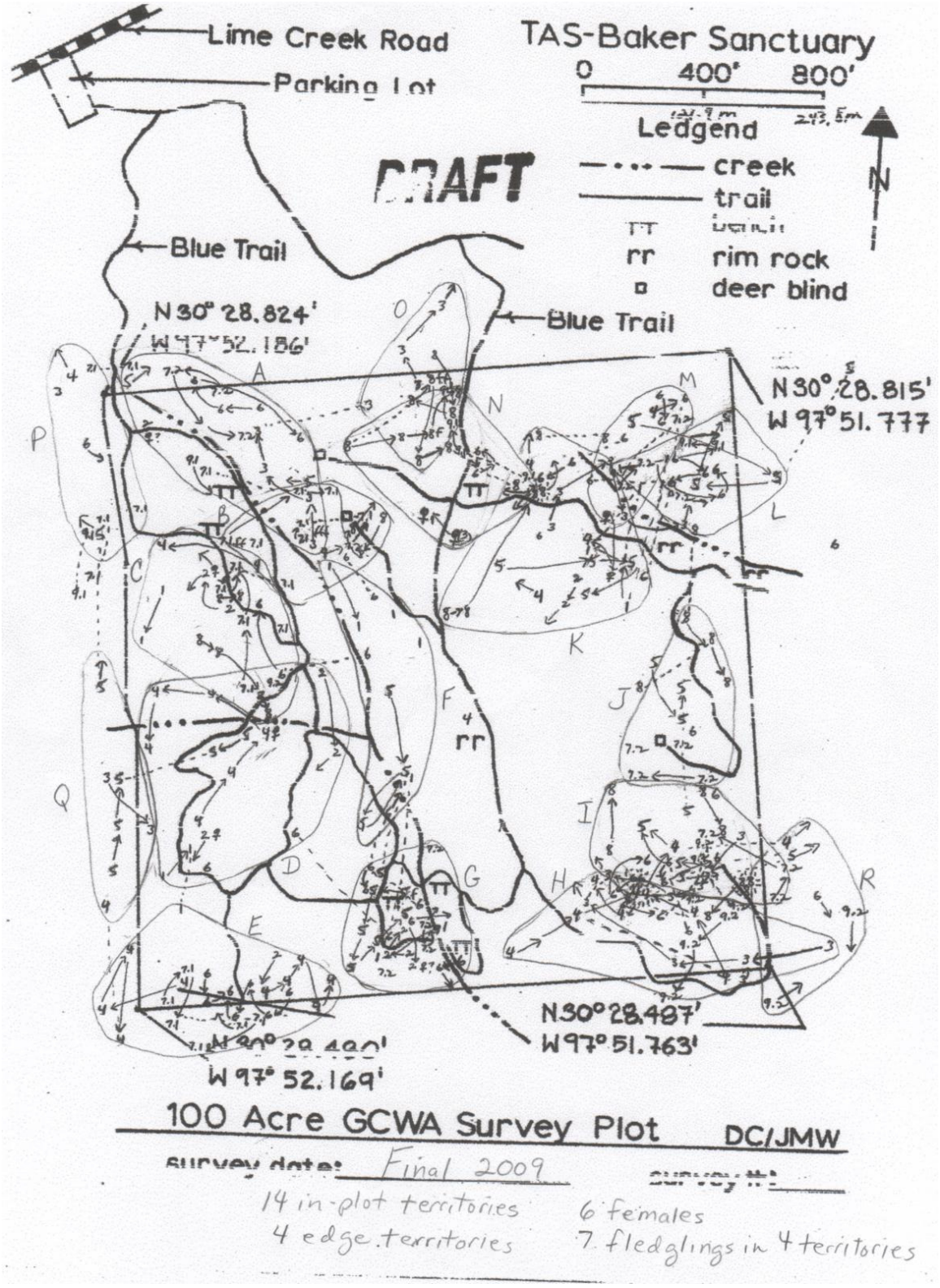



**Figure 1.** Map of 100-acre survey site, Baker Sanctuary, Travis County, showing compiled Golden-cheeked Warbler observations and final territory estimates, Spring 2009.

**Table 3.** Bird species detected in Baker Sanctuary 100-acre plot during Golden-cheeked Warbler surveys, Spring 2009.

| SPECIES | 3/22 | 3/28 | 4/5 | 4/19 | 5/2 | 5/9 | 5/16 | 5/17 | 5/23 | 5/31 | 6/2 | DAYS COUNTED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Black Vulture | X | | X | X | | | | | | | | 3 |
| Turkey Vulture | X | X | X | X | X | X | | X | | | | 7 |
| Cooper's Hawk | | | | | | X | | | | | | 1 |
| Red-shouldered Hawk | | | | | | X | | | | | | 1 |
| Wild Turkey | | | | | | | | | X | | | 1 |
| White-winged Dove | | | | | X | | | | | | | 1 |
| Mourning Dove | X | X | X | X | X | X | | X | X | X | | 9 |
| Yellow-billed Cuckoo | | | | | X | X | X | | X | X | X | 6 |
| Greater Roadrunner | | | | | | | X | | X | | X | 3 |
| Owl sp. | | | | | | | | | | | X | 1 |
| Common Nighthawk | | | | | | | | X | | | | 1 |
| Chuck-will's-widow | | | | | | | | X | | | | 1 |
| Chimney Swift | | | | | | X | | | X | | | 2 |
| Black-chinned Hummingbird | | X | | | | | | | | | X | 2 |
| Golden-fronted Woodpecker | X | | | | | | | | | | | 1 |
| Red-bellied Woodpecker | | | | | | X | | | | | | 1 |
| Ladder-backed Woodpecker | | X | | X | | | X | X | X | | X | 6 |
| Empidonax sp. | | | | | | X | | X | | | | 2 |
| Eastern Phoebe | | | | X | X | | | | | | | 2 |
| Ash-throated Flycatcher | | | | | | | | | | X | | 1 |
| Western Scrub-Jay | X | | | X | | X | X | X | X | X | | 7 |
| American Crow | | | | | X | X | X | | X | | | 4 |
| Barn Swallow | | | X | | X | | | X | | X | | 4 |
| Carolina Chickadee | X | X | X | X | X | X | X | X | X | X | X | 11 |
| Black-crested Titmouse | X | X | X | X | X | X | X | X | X | X | X | 11 |
| Carolina Wren | | | | X | | | | | | X | | 2 |
| Bewick's Wren | X | X | | X | X | | X | X | X | X | X | 9 |
| Ruby-crowned Kinglet | X | X | X | X | | | | | | | | 4 |
| Blue-gray Gnatcatcher | X | X | X | X | | X | X | X | X | X | X | 10 |
| White-eyed Vireo | X | X | | X | | X | X | X | X | X | X | 9 |
| Blue-headed Vireo | | | X | | | | | | | | | 1 |
| Tennessee Warbler | | | | X | | | | | | | | 1 |
| Nashville Warbler | | X | | | X | | X | | | | | 3 |
| Golden-cheeked Warbler | X | X | X | X | X | X | X | X | X | X | X | 11 |
| Black-and-white Warbler | X | X | | X | X | X | | X | X | X | X | 9 |
| American Redstart | | | | | | | X | | | | | 1 |
| Yellow-breasted Chat | | | | | X | | | | | | | 1 |
| Summer Tanager | | | | | X | | | | | | | 1 |
| Northern Cardinal | X | X | X | X | X | X | X | X | X | X | X | 11 |
| Painted Bunting | | | | X | X | X | X | X | X | X | X | 8 |
| Common Grackle | | | | | | | | X | X | | | 2 |
| Grackle sp. | | | | | | | | | | | X | 1 |
| Brown-headed Cowbird | | | X | | | | X | | | | | 2 |
| House Finch | | X | | | X | | | | | | | 2 |
| Lesser Goldfinch | | | | | X | X | X | X | X | X | X | 7 |
| **TOTAL SPECIES** | 14 | 15 | 12 | 18 | 19 | 19 | 17 | 19 | 19 | 16 | 16 | 45 |