2004 Rare Bird Survey Report

Wheless Preserve
Travis County

Lower Colorado River Authority

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Environmental Services

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INTRODUCTION

Wheless Preserve is a 2,317-acre tract of land owned by the Lower Colorado River Authority (LCRA) and located off Lime Creek Road, northeast of Lake Travis (Figure 1). It is managed as a preserve for the endangered golden-cheeked warbler (*Dendroica chrysoparia*) (GCWA), a songbird that nests exclusively in the Texas Hill Country. It is also managed to protect other rare resources in western Travis County as part of the Balcones Canyonlands Preserve system. During the 2003 breeding season, presence-absence level surveys were conducted on two 100-acre test plots in order to update data regarding the presence of warblers on the property (Figures 1-3). Surveys were performed by LCRA Community Services employees, Melanie Pavlas and Beth Banks.

METHODS

Survey methods followed guidelines as suggested in the United States Fish and Wildlife Service's (USFWS) protocol for conducting presence/absence surveys of golden-cheeked warblers. The protocol calls for a minimum of 4 hours of survey time per 100 acres of habitat per visit, or a minimum of 5 visits per site, with surveys to be conducted 5 days apart.

Two 100-acre test plots were surveyed. Plot 1 represents prime habitat and Plot 2 represents transitional habitat (Figures 1-3). A total of seven visits per plot and a minimum of 1 hour to over 4 hours were spent on each plot per visit. This provided sufficient time for presence-absence level surveys to be completed. A total of 40.28 hours were spent surveying the test plots (Table 1). Two site visits were completed in March, three in April and three in May. Attempts were made to divide visit time equally between both test plots, but at times, one plot was surveyed for a longer period than the other.

Weather conditions were noted at the beginning and end of each survey and at times when changes in weather warranted notation (Table 2). All bird species observed during each survey were also noted (Table 4). Field data were documented the week of or the week following each survey (Appendix).

The property was surveyed visually and aurally. No tapes or vocalizations were used to attract birds. When birds were observed, they were followed throughout their territories, as long as they were detectable. Emphasis was made on collecting data on singing birds and visiting areas where birds were most likely to be found.

During each field visit, locations where birds were observed singing were mapped as well as estimated locations of singing birds. When visual confirmation was made, bird locations were mapped using a Magellan handheld GPS unit. At the end of the field season, GPS data was compiled and bird locations were mapped using ArcGIS 9.0 and hand drawn field maps.

FINDINGS

Plot topography ranges from shallow canyons and uplands to riparian zones and dry hillsides with limestone outcroppings. Vegetation is dominated by Texas oak (*Quercus buckleyi*) with shin oak (*Quercus sinuata*), live oak (*Quercus fusiformis*), cedar elm (*Ulmus crassifolia*), ashe juniper (*Juniperus ashei*), Texas persimmon (*Diospyros texana*) and other woody species present, including some Lindheimer silk-tassel (*Garrya lindheimeri*). In open areas, vegetation also includes mixed grasses, forbs and succulents such as little bluestem (*Schizachyrium scoparium*), prairie verbena (*Verbena bipinnatifida*) and prickly pear (*Opuntia* sp.).

Male GCWAs were found within both test plots and were observed on all site visits except for plot 1 on the March 30th and April 13th site visits. Zero to four males were observed singing during each survey (Appendix). Thirteen males total were found during the 2004 breeding season, with ten males occupying plot one and three males occupying plot two (Figures 2-3). Males were numbered according to the order they were observed on each plot. On plot one, countersinging was observed between males one and two. Additionally, male seven was observed countersinging with a GCWA male off the property. On plot two, male one was observed countersinging with another male off the plot.

One female was observed chipping within male three's territory (plot 2) (Table 3). No juveniles were observed during the survey, and no nesting behavior was observed (adults carrying nesting material, etc.). It should be noted that time was

not spent to collect data on breeding success. Brown-headed cowbirds (BHCO) (*Molothrus ater*) were not observed this season.

DISCUSSION AND RECOMMENDATIONS

The number of golden-cheeked warbler males found this survey season corresponds similarly with previous years' findings for both test plots, including the locations of some of these males. Data has been collected on Plot 1 since 1997 while data from Plot 2 has only been collected since 2002. However, overall warbler activity was low. Most males were only observed singing on one or two occasions total.

Current management practices at Wheless Preserve should be continued.

- In areas where infrastructure corridors are maintained, the canopy cover should be allowed to regrow as much as possible. This will allow the improvement of fragmented or cleared areas to a more natural state while still adapting to infrastructure needs. As identified in the BCP Management Plans, corridors should be a maximum of 16 ft wide.
- Control of exotic vegetation and oak wilt should be undertaken as identified in the Tier III Management Plan.
- Annual surveys on the two test plots should continue with territory-level surveys repeated on the entire preserve every three to five years.

Because of the low number of encounters (once in 2003) with BHCOs the past two seasons, it probably would not be beneficial to trap cowbirds at Wheless in 2005. The costs associated with staff time to monitor the traps would outweigh the need at this preserve, especially when other properties would have a greater need for the traps.

It would also be beneficial to remove the exotic plant species found and GPSd during the 2002 and 2004 breeding seasons, as well as confirming the oak wilt center also identified and mapped in 2002. As a BCP partner, LCRA is obligated to address these issues. Since these sites were mapped, it would be a much easier task to initiate. According to the Tier III Management Plan for Wheless Preserve, control of exotic vegetation and oak wilt should be undertaken, as appropriate.

It is also important to continue to regularly monitor the deer population at Wheless and to conduct harvesting efforts if the population is too high. Deer management activities are performed at adjacent Travis County properties. Therefore, we should coordinate efforts with Travis County.

Finally, monitoring trespass at Wheless is helping and should continue. This will help minimize potential impacts to the preserve from unauthorized access.

References

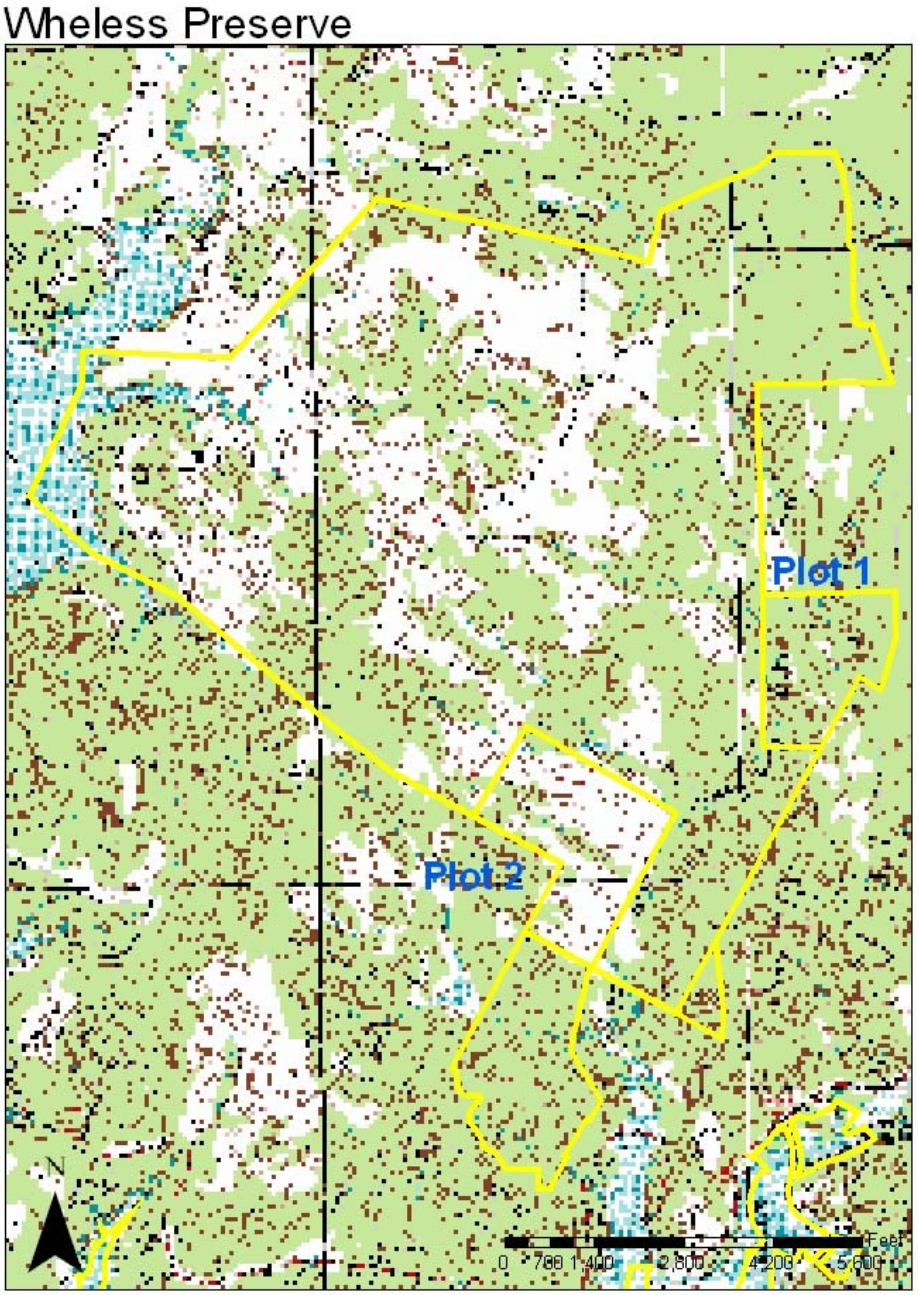
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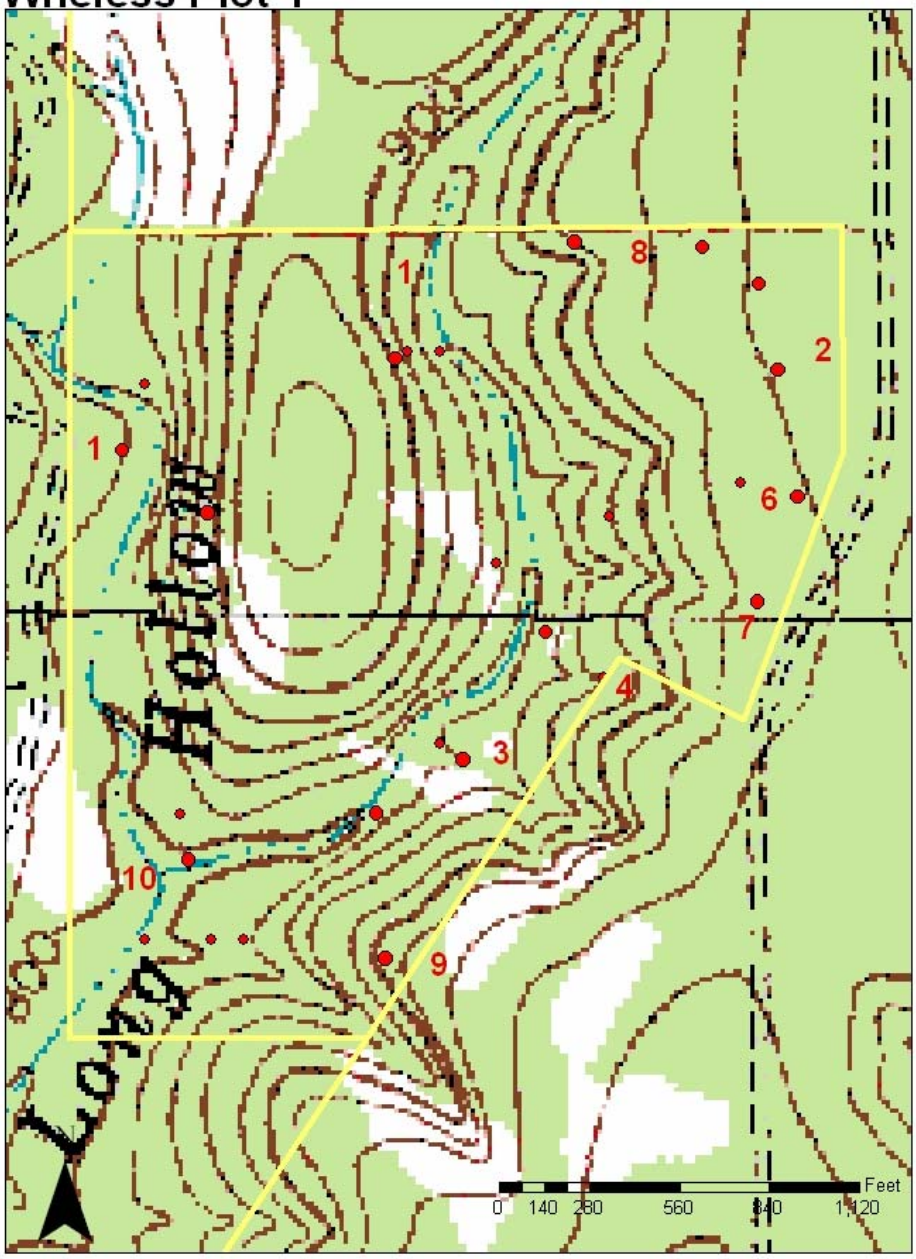
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Figures 1-3


Wheless Preserve
Plot 1
Plot 2
N
0
700
1,400
2,800
4,200
5,600
Feet

Wheless Plot 1



Wheless Plot 2

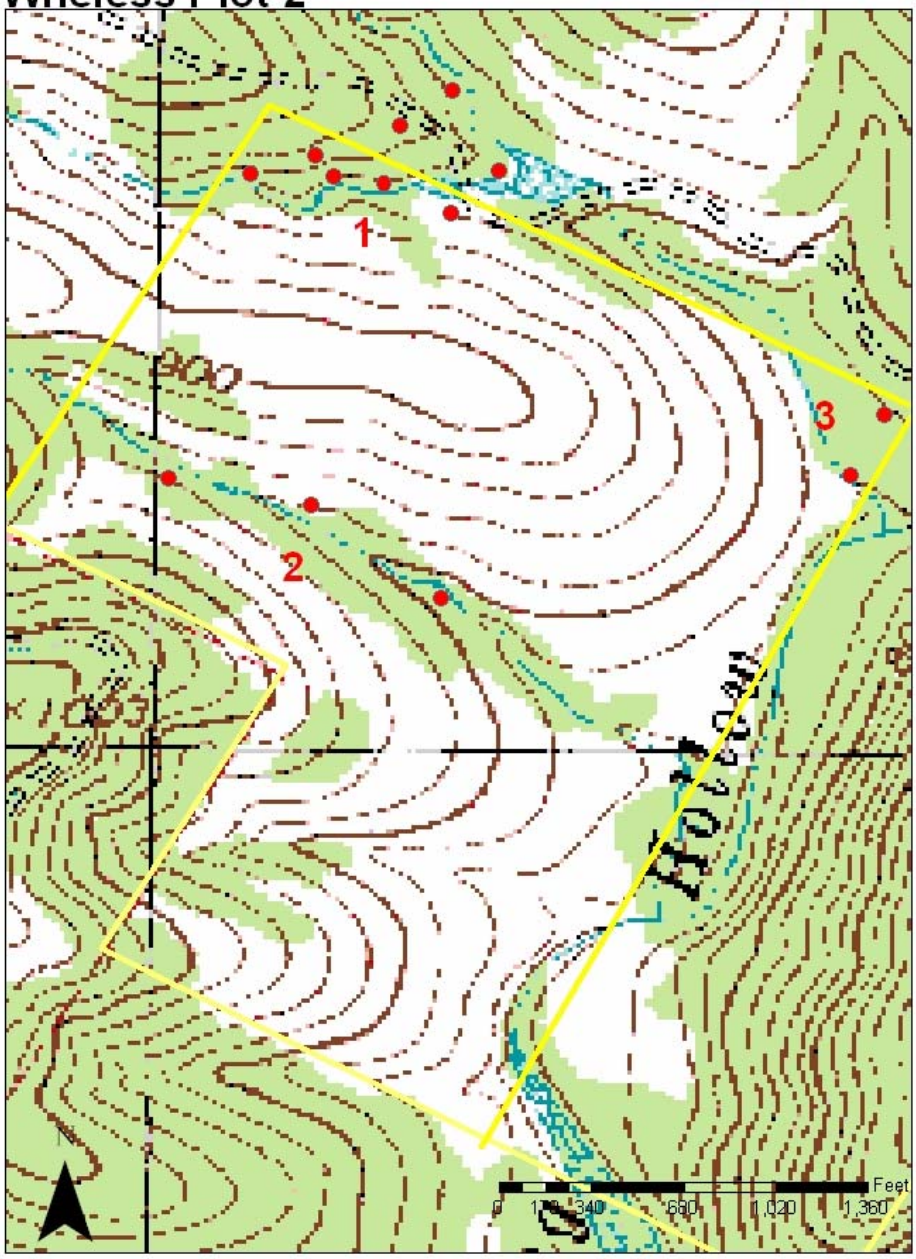


Table 1. Survey Hours

Date	Surveyor	Plot	Start Time	End Time	Total Hours
March 19, 2004	Melanie Pavlas and Beth Banks	1	842	1137	2.92
March 19, 2004	Melanie Pavlas and Beth Banks	2	1137	1237	1.00
March 30, 2004	Beth Banks	1	830	1230	4.00
March 30, 2004	Melanie Pavlas	2	836	1236	4.00
April 13, 2004	Melanie Pavlas	1	739	912	1.55
April 13, 2004	Melanie Pavlas	2	917	1240	3.38
April 20, 2004	Beth Banks	1	830	1242	4.20
April 20, 2004	Melanie Pavlas	2	822	1229	4.12
April 27, 2004	Melanie Pavlas and Rachel Bauer	1	720	1110	3.83
May 4, 2004	Melanie Pavlas	2	648	1059	4.18
May 11, 2004	Beth Banks	1	730	859	1.48
May 11, 2004	Melanie Pavlas	2	750	853	1.05
May 21, 2004	Melanie Pavlas	1	649	856	2.12
May 21, 2004	Melanie Pavlas	2	859	1126	2.45
				TOTAL HOURS	**40.28**

Table 2. Weather

Date	Time (start-end)	Temp (°F, start-end)	Plot	Wind (mph, start-end)	Sky (start-end)
March 19, 2004	842 1137	72°	1	Calm	Drizzle
March 19, 2004	1137 1237	71°	2	0-2	Drizzle, overcast
March 30, 2004	830 1230	64° 74°	1	0-4 0-7	Clear 5% cloud cover
March 30, 2004	836 1236	65° 74°	2	0 0-2	Clear and sunny Clear and sunny
April 13, 2004	739 912	45° 50°	1	0-4 0-3	Clear Mostly cloudy, sunny
April 13, 2004	917 1240	50° 62°	2	0-5 0-6	Mostly cloudy Partly cloudy, sunny
April 20, 2004	830 1242	68° not noted	1	0-5 not noted	90% cloud cover not noted
April 20, 2004	822 1229	60° 63°	2	0-4, gusts to 15 0-6	100% overcast 100% cloud cover
April 27, 2004	720	55°	1	0	Mostly clear, cold!

	1110	73°		0	Mostly clear
	648	58°	2	0	Clear
May 4, 2004	1059	72°		0-4	Clear
	730	74°	1	0	90% cloud cover
	859				rain
May 11, 2004	915				thunder
	750	72°	2	0-3	Overcast
May 11, 2004	853				Rain
	649	72°	1	0-4	Partly cloudy
May 21, 2004	856	75°		0-3	Mostly cloudy
	859	76°	2	0-3	Mostly cloudy
May 21, 2004	1126	83°		0-8	Partly cloudy

Table 3. Females by Territory

Territory	Female	Notes
3	1	Two warblers chipping so assumed one female; no visual

Table 4. Bird Species

Common Name	Scientific Name	2003	2004	Notes
Ash-throated Flycatcher	*Myiarchus cinerascens*	x	x	
Barn Swallow	*Hirundo rustica*	x	x	
Belted Kingfisher	*Ceryle alcyon*	x	x	
Bewick's Wren	*Thryomanes bewickii*	x	x	
Black Vulture	*Coragyps atratus*	x	x	
Black-and-White Warbler	*Mniotilta varia*	x	x	
Blue Jay	*Cyanocitta cristata*	x		
Blue-gray Gnatcatcher	*Polioptila caerulea*	x	x	
Brown-headed Cowbird	*Molothrus ater*	x		
Bushtit	*Psaltriparus minimus*	x	x	
Canyon Towhee	*Pipilo fuscus*	x		
Canyon Wren	*Catherpes mexicanus*	x		
Carolina Chickadee	*Parus carolinensis*	x	x	
Carolina Wren	*Thryothorus ludovicianus*	x	x	
Cave Swallow	*Petrochelidon fulva*	x	x	
Chimney Swift	*Chaetura pelagica*	x	x	
Chipping Sparrow	*Spizella passerina*	x		
Chuck-will's-widow	*Caprimulgus carolinensis*	x		
Cliff Swallow	*Hirundo pyrrhonota*	x		
Common Grackle	*Quiscalus quiscula*	x	x	
Common Nighthawk	*Chordeiles gundlachii*	x		
Cooper's Hawk	*Accipiter cooperii*		x	??????

Eastern Meadowlark	*Sturnella magna*		x	
Eastern Phoebe	*Sayornis phoebe*	x	x	
Eastern Screech Owl	*Otus asio*	x	x	4/13/04: Pair roosting in AJ
Eastern Towhee	*Pipilo erythrophthalmus*	x		
Field Sparrow	*Spizella pusilla*	x	x	
Golden-cheeked Warbler	*Dendroica chrysoparia*	x	x	
Great Blue Heron	*Ardea herodias*		x	
Great-crested Flycatcher	*Myiarchus crinitus*	x	x	
Greater Roadrunner	*Geococcyx californianus*	x	x	
Great-tailed Grackle	*Quiscalus mexicanus*	x	x	
House Finch	*Carpodacus mexicanus*	x	x	
Inca Dove	*Columbina inca*		x	
Killdeer	*Charadrius vociferus*	x		
Ladder-backed Woodpecker	*Picoides scalaris*	x	x	
Lark Sparrow	*Chondestes grammacus*	x		
Laughing Gull	*Laris atricilla*		x	4/20/04: FO
Lesser Goldfinch	*Carduelis psaltria*	x	x	
Mourning Dove	*Zenaida macroura*	x	x	
Nashville Warbler	*Vermivora ruficapilla*	x	x	
Neotropic Cormorant	*Phalacrocorax brasilianus*	x		
Northern Bobwhite	*Colinus virginianus*	x	x	
Northern Cardinal	*Cardinalis cardinalis*	x	x	
Northern Mockingbird	*Mimus polyglottos*		x	
Painted Bunting	*Passerina ciris*	x	x	
Purple Martin	*Progne subis*	x	x	
Red-eyed Vireo	*Vireo olivaceus*	x		
Red-shouldered Hawk	*Buteo lineatus*		x	
Red-tailed Hawk	*Buteo jamaicensis*	x	x	
Ruby-crowned Kinglet	*Regulus calendula*	x	x	
Rufous-crowned Sparrow	*Aimophila ruficeps*	x	x	
Scrub Jay	*Aphelocoma coerulescens*	x	x	
Snow Goose	*Chen caerulescens*		x	3/30/04: ~20
Summer Tanager	*Piranga rubra*	x	x	
Swainson's Hawk	*Buteo swainsoni*	x		
Tufted Titmouse	*Parus bicolor*	x	x	
Turkey Vulture	*Cathartes aura*	x	x	
Unidentified Hummingbird	*Archilochus* sp.	x	x	
Unidentified Sparrow	*Emberizidae* sp.	x		
Verdin	*Auriparus flaviceps*	x		
White-eyed Vireo	*Vireo griseus*		x	
Wild Turkey	*Meleagris gallopavo*	x	x	
Yellow-billed Cuckoo	*Coccyzus americanus*	x	x	
Yellow Warbler	*Dendroica petechia*	x	x	

Appendix

LCRA Bird Surveys Data Sheet

Observer(s)	Beth Banks and Melanie Pavlas
Date (mo-da-yr)	3/20/04
Time (military, begin – end, hrs)	0842 – 1137 Plot 1 1137-1237 Plot 2
Site Visit #	1
Conditions (temp, wind, cloud cover, other)	72° , calm, drizzle 71° , Wind = 0-2 mph, drizzle, overcast
Acres Surveyed	200

General Notes (trespass, public contact, stewardship issues, fencing or signage, other wildlife observations, oak wilt, storm damage, etc.)	All birds noted were located in Plot 1 (prime habitat). No birds were heard in Plot 2.

Male	Song Type	Female #	Juv #	Notes
1	A			Countersinging with GCW2
2	A			Countersinging with GCW1
3	A, B			
4	A			Seen first, then heard

LCRA Bird Surveys Data Sheet

Observer(s)	Beth Banks and Melanie Pavlas
Date (mo-da-yr)	3/30/04
Time (military, begin – end, hrs)	0830-1230 Plot 1 0836-1236 Plot 2
Site Visit #	2
Conditions (temp, wind, cloud cover, other)	Plot 1: 64° , clear, w=0-4 mph; 74° , 5% cloud cover, w=0-7 mph Plot 2: 65° , clear and sunny, w=0 mph; 74° , clear and sunny, w=0-2 mph
Acres Surveyed	200

General Notes (trespass, public contact, stewardship issues, fencing or signage, other wildlife observations, oak wilt, storm damage, etc.)	Trash from fencers near Plot 2. Fence ROW cleared beyond 16' and several large junipers that could have been trimmed (>10" diameter). Heard 6 GCWAs outside Plot 2 boundary and only 1 within.

Male	Song Type	Female #	Juv #	Notes
Plot 1				
2	A			Adjacent to road near deer blind
5	A			
6	A			
7	A, B			On property then flew off property; Countersinging with a GCWA off property using B song
Plot 2				
1	A			

LCRA Bird Surveys Data Sheet

Observer(s)	Melanie Pavlas
Date (mo-da-yr)	4/13/04
Time (military, begin – end, hrs)	**Plot 1**: 0739-0912 **Plot 2**: 0917-1240
Site Visit #	3
Conditions (temp, wind, cloud cover, other)	**Plot 1**: 0739, 45°, wind=0-4 mph, clear 0912, 50°, wind=0-3 mph, mostly cloudy but sunny **Plot 2**: 0917, 50°, wind=0-5 mph, mostly cloudy 1240, 62°, wind=0-6, partly cloudy and sunny
Acres Surveyed	200

General Notes (trespass, public contact, stewardship issues, fencing or signage, other wildlife observations, oak wilt, storm damage, etc.)	All over preserve, lots of running water from recent rains; good creek flow (Long Hollow Cr.) **Plot 1**: Long Hollow Creek ~2' at gate/fenceline (WPT172), possible canyon mock orange (?) (WPT173), Chinaberry across ravine (on fence side) on section of plot across cross fencing (WPT174) **Plot 2**: evidence of mulch from SEPI washing into Long Hollow Creek, white-tailed deer

Male	Song Type	Female #	Juv #	Notes
Plot 2				
1	A			

LCRA Bird Surveys Data Sheet

Observer(s)	Beth Banks and Melanie Pavlas
Date (mo-da-yr)	4/20/04
Time (military, begin – end, hrs)	**Plot 1**: 0830-1242 **Plot 2**: 0822-1229
Site Visit #	4
Conditions (temp, wind, cloud cover, other)	**Plot 1**: 0830, 68°, wind=0-5 mph, 90% cloud cover **Plot 2**: 0822, 60°, wind=0-4 mph with gusts to 15 mph, 100% overcast 1229: 63°, wind=0-6 with gusts to 15 mph, 100% cloud cover
Acres Surveyed	200

General Notes (trespass, public contact, stewardship issues, fencing or signage, other wildlife observations, oak wilt, storm damage, etc.)	**Plot 1**: verbena, phlox and salvia greggii blooming, white-tailed deer One GCW singing B song off property WPT178=Long Hollow Creek at entry road

Male	Song Type	Female #	Juv #	Notes
Plot 1				
1	A			WPT179; startled by surveyor and flew off property
2	A			
3	A			
Plot 2				
4	A			

LCRA Bird Surveys Data Sheet

Observer(s)	Melanie Pavlas and Rachel Bauer
Date (mo-da-yr)	4/27/04
Time (military, begin – end, hrs)	**Plot 1**: 0720-1110
Site Visit #	5
Conditions (temp, wind, cloud cover, other)	0720: 55°, wind = 0 mph, mostly clear and cold! 1110: 73°, wind = 0 mph, mostly clear
Acres Surveyed	100

General Notes (trespass, public contact, stewardship issues, fencing or signage, other wildlife observations, oak wilt, storm damage, etc.)	WPT181 and 183: Chinaberry locations WPT182: Johnson Grass location Tracks from large hog

Male	Song Type	Female #	Juv #	Notes
8	B			
9	Chipping			Only heard chipping, no visual so ??????????

LCRA Bird Surveys Data Sheet

Observer(s)	Melanie Pavlas
Date (mo-da-yr)	5/4/04
Time (military, begin – end, hrs)	**Plot 2**: 0648-1059
Site Visit #	6
Conditions (temp, wind, cloud cover, other)	0648: 58°, wind = 0 mph, clear 1059: 72°, wind = 0-4 mph, clear
Acres Surveyed	100

General Notes (trespass, public contact, stewardship issues, fencing or signage, other wildlife observations, oak wilt, storm damage, etc.)	WPT184 – location check; road near pond Green lilies on Plot 2 as well as Plot 1 Black-tailed jack rabbit Wild turkey hen

Male	Song Type	Female #	Juv #	Notes
1	A			Might be the same male that I found working the drainages leading to the pond that lie outside the plot boundary.
4	A			

LCRA Bird Surveys Data Sheet

Observer(s)	Melanie Pavlas and Beth Banks
Date (mo-da-yr)	5/11/04
Time (military, begin – end, hrs)	**Plot 1**: 0730-0859 **Plot 2**: 0750-0853
Site Visit #	7
Conditions (temp, wind, cloud cover, other)	0730: 74°, wind = 0 mph, 90% cloud cover 0750: 72°, wind = 0-3 mph, overcast 0853: rain, survey stopped 0915: thunder
Acres Surveyed	200

General Notes (trespass, public contact, stewardship issues, fencing or signage, other wildlife observations, oak wilt, storm damage, etc.)	

Male	Song Type	Female #	Juv #	Notes
Plot 1				
1	A			WPT188, along Long Hollow Creek
Plot 2				
1				On very edge/NE corner of plot, countersinging with a male off plot

LCRA Bird Surveys Data Sheet

Observer(s)	Melanie Pavlas
Date (mo-da-yr)	5/21/04
Time (military, begin – end, hrs)	**Plot 1**: 0649-0856 **Plot 2**: 0859-1126
Site Visit #	8
Conditions (temp, wind, cloud cover, other)	**Plot 1**: 72°, wind = 0-4 mph, partly cloudy 75°, wind = 0-3 mph, mostly cloudy **Plot 2**: 76°, wind = 0-3 mph, mostly cloudy 83°, wind = 0-8 mph, partly cloudy
Acres Surveyed	200

General Notes (trespass, public contact, stewardship issues, fencing or signage, other wildlife observations, oak wilt, storm damage, etc.)	**Plot 1**: Huge ashe juniper along Long Hollow Creek (see field map) **Plot 2**: Young Texas madrones found along southernmost ravine of plot (see field map)

Male	Song Type	Female #	Juv #	Notes
Plot 1	A			
10				
Plot 2				
2	Chipping	1		Two warblers chipping, therefore assume male and female, but no visual.