

2003 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 (Figures 1-3). Surveys were performed by LCRA Community Services employee, Melanie Pavlas.

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 at Wheless Preserve. Plot 1 represents prime habitat and Plot 2 represents transitional habitat (Figures 1-3). A total of seven visits and a minimum of 4.5 hours to over 6 hours were spent on site per visit. This provided sufficient time for presence-absence level surveys to be completed. A total of 40.19 hours were spent surveying the test plots (Table 1). One site visit was completed in March, four in April and two 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 (i.e. typical habitat).

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 Magellan handheld GPS units. At the end of the field season, GPS data was compiled and territory locations were mapped using ArcView 3.2 and hand drawn field maps.

FINDINGS

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 and forbs, such as little bluestem (*Schizachyrium scoparium*), prickly pear (*Opuntia* sp.) and prairie verbena (*Verbena bipinnatifida*).

Male GCWAs were found within both test plots and were observed on all seven site visits. One to six males were observed singing during each survey (Appendix). Ten males total were found during the 2003 breeding season, with six males occupying plot one (males 1-5 and 9) and four males occupying plot two (males 6-8 and 10) (Figures 2-3). Males were numbered according to the order they were observed. Countersinging was observed between males two and three, males four and five, and males two and nine. Additionally, males two and three were observed countersinging with GCWA males off the property.

One female was observed chipping within male three's territory (Table 3). No juveniles were observed during the survey, and no nesting behavior was observed (adults carrying nesting material, etc.). Brown-headed cowbirds

(*Molothrus ater*) were observed only once during the season and no GCWA was observed caring for cowbird young.

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 territories. Data has been collected on Plot 1 since 1997 while data from Plot 2 has only been collected since 2002.

Current management practices at Wheless Preserve should be continued. 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 presence of BHCOs and the high level of encounters last season, it may be beneficial to trap cowbirds at Wheless in 2004. Cowbird trapping within GCWA and BCVI habitat has proven to be a beneficial practice when managing for these endangered birds.

It would also be beneficial to remove the exotic plant species found and GPSd during the 2002 breeding season, 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.

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

References

Bibby, et al. 2000. Bird Census Techniques, 2nd edition. Academic Press, London, UK.

Loomis Austin. 2002. 2002 Golden-cheeked Warbler (*Dendroica chrysoparia*) Survey of the Wheless Preserve. Austin, TX.

Lower Colorado River Authority. 1997. Tier III Management Plan for the Balcones Canyonlands Preserve System: Wheless Preserve Cypress Creek Macrosite. Austin, TX.

U.S. Fish and Wildlife Service. 2001. Minimum Procedures for Determining the Presence/Absence of Golden-cheeked Warblers and Black-capped Vireos. Austin, TX.

Figure 1: Wheless Preserve

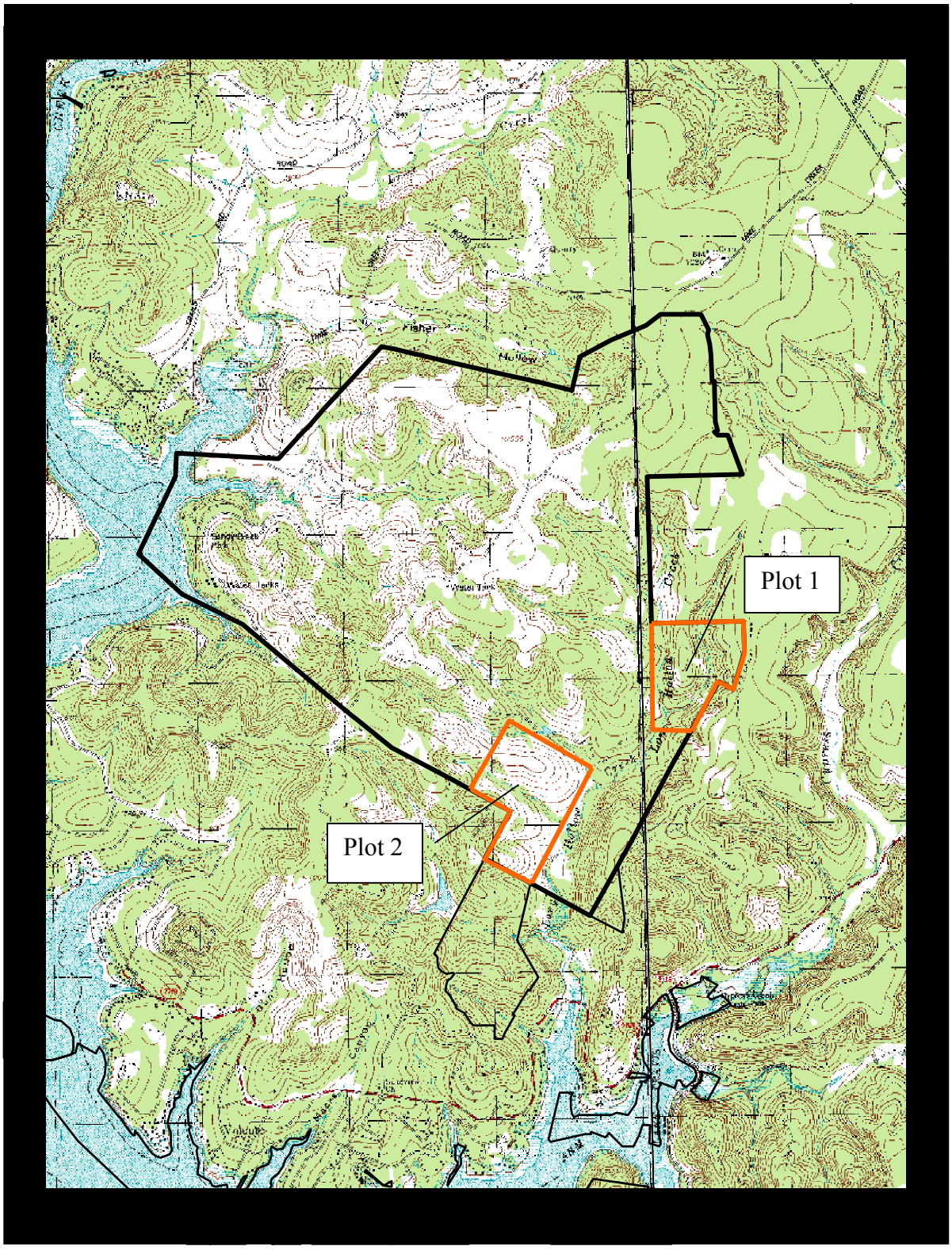

Plot 1
Plot 2

Figure 2: Wheless Preserve – Plot 1

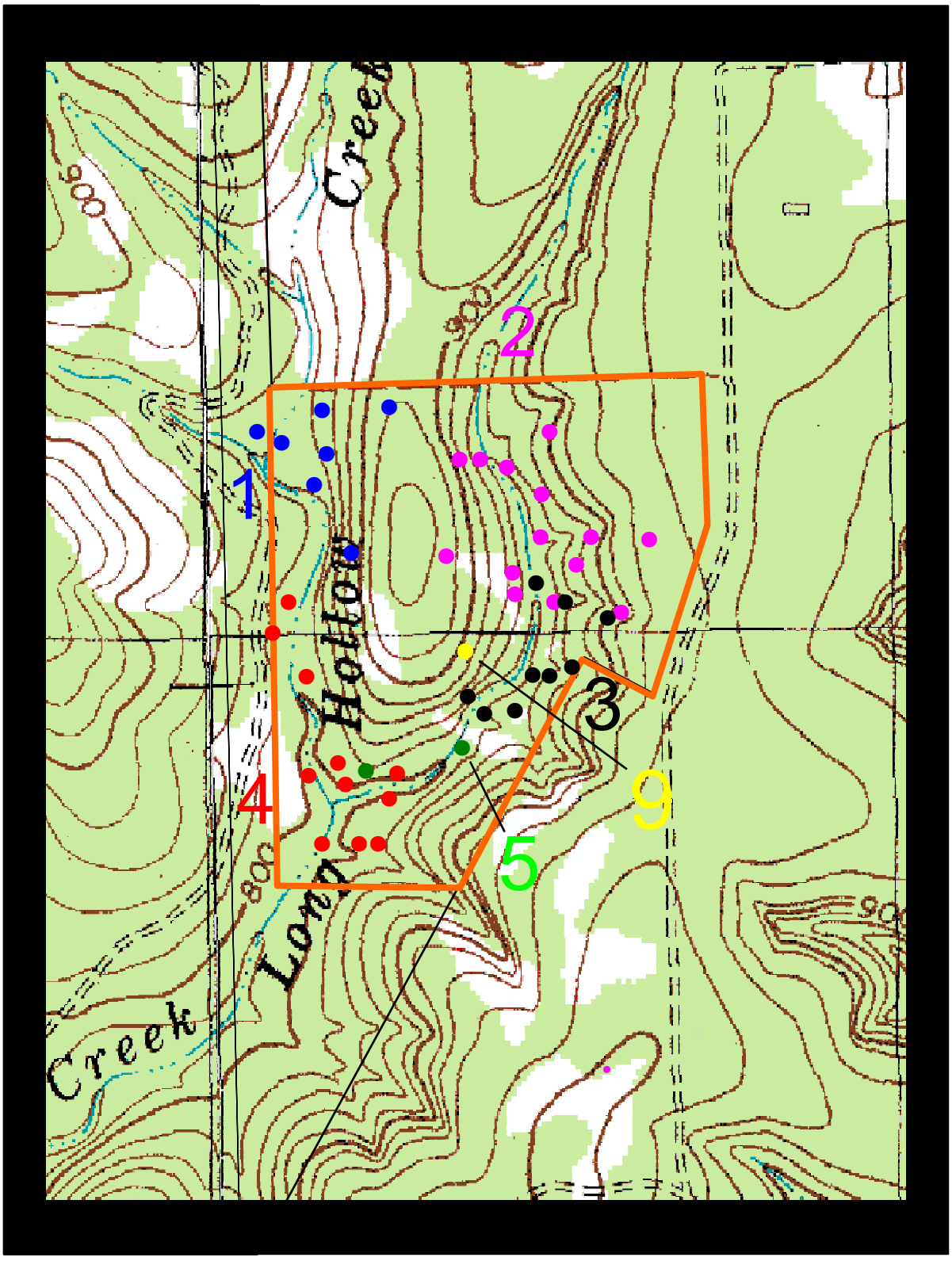

Creek
Long Hollow
Creek
900
1
2
3
4
5
9

Figure 3: Wheless Preserve – Plot 2

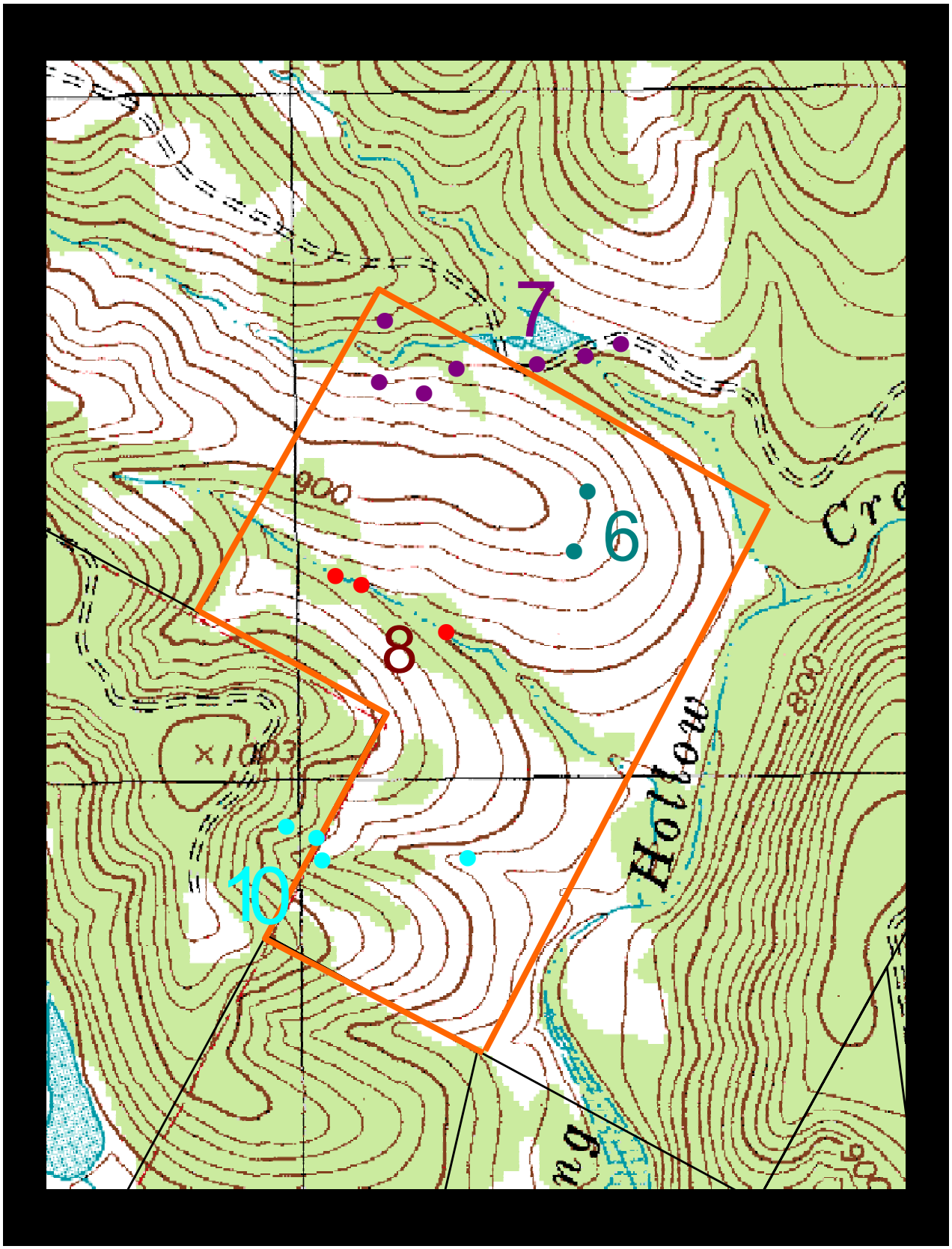

7
6
8
10
900
800
Hollow

Table 1. Survey Hours

Date	Surveyor	Start Time	End Time	Total Hours
03/21/03	M. Pavlas	0730	1337	6.12
04/10/03	M. Pavlas	0733	1221	4.80
04/18/03	M. Pavlas	0632	1229	5.95
04/24/03	M. Pavlas	0636	1239	6.05
04/30/03	M. Pavlas	0637	1248	6.18
05/08/03	M. Pavlas	0631	1232	5.02
05/14/03	M. Pavlas	0630	1234	6.07
			TOTAL HRS.	**40.19**

Table 2. Weather

Date	Time (start-end)	Temp (°F, start-end)	Wind (mph, start-end)	Sky (start-end)
03/21/03	0730 – 1337	49 75	0 0	clear 3% cloud cover
04/10/03	0733 – 1224	45 75	0-4 0-3	5% cloud cover, clear
04/18/03	0632 – 1229	68 82	0-15, gusts to 20 0-15	overcast mostly cloudy
04/24/03	0636 – 1239	70 80	0 0-5	overcast clear
04/30/03	0637 – 1036 – 1248	69 74	0-7 0-4	cloudy, light rain on arrival, hazy sunshine and mostly cloudy overcast
05/08/03	0631 – 0715 – 0745 – 0756 – 0850 – 1207 – 1232	77 83	0 0-2	100% overcast intermittent thunder thunder, lightening light rain thunder, lightening, light rain thunder mostly cloudy, thunder, light rain
05/14/03	0630 – 1234	72 86	0-8, gusts to 20 0-10	Mostly cloudy Partly cloudy, sunny

Table 3. Females by Territory

Territory	Female	Notes
3	1	chipping

Table 4. Bird Species

Common Name	Species Name
Ash-throated Flycatcher	*Myiarchus cinerascens*
Barn Swallow	*Hirundo rustica*
Belted Kingfisher	*Ceryle alcyon*
Bewick's Wren	*Thryomanes bewickii*
Black Vulture	*Coragyps atratus*
Black-and-white Warbler	*Mniotilta varia*
Blue-gray Gnatcatcher	*Polioptila caerulea*
Blue Jay	*Cyanocitta cristata*
Brown-headed Cowbird	*Molothrus ater*
Bushtit	*Psaltriparus minimus*
Canyon Towhee	*Pipilo fuscus*
Canyon Wren	*Catherpes mexicanus*
Carolina Chickadee	*Parus carolinensis*
Carolina Wren	*Thryothorus ludovicianus*
Cave Swallow	*Petrochelidon fulva*
Chimney Swift	*Chaetura pelagica*
Chipping Sparrow	*Spizella passerina*
Chuck-will's-widow	*Caprimulgus carolinensis*
Cliff Swallow	*Petrochelidon pyrrhonota*
Common Grackle	*Quiscalus quiscula*
Common Nighthawk	*Chordeiles minor*
Eastern Phoebe	*Sayornis phoebe*
Eastern Screech Owl	*Otus asio*
Eastern Towhee	*Pipilo erythrophthalmus*
Field Sparrow	*Spizella pusilla*
Golden-cheeked Warbler	*Dendroica chrysoparia*
Great-crested Flycatcher	*Myiarchus crinitus*
Greater Roadrunner	*Geococcyx californianus*
Great-tailed Grackle	*Quiscalus mexicanus*
House Finch	*Carpodacus mexicanus*
Hummingbird Species	*Archilochus* spp.
Killdeer	*Charadrius vociferus*
Ladder-backed Woodpecker	*Picoides scalaris*
Lark Sparrow	*Chondestes grammacus*
Lesser Goldfinch	*Carduelis psaltria*
Mourning Dove	*Zenaida macroura*
Nashville Warbler	*Vermivora ruficapilla*
Neotropic Cormorant	*Phalacrocorax brasilianus*
Northern Bobwhite	*Colinus virginianus*
Northern Cardinal	*Cardinalis cardinalis*

Painted Bunting	*Passerina ciris*
Purple Martin	*Progne subis*
Red-eyed Vireo	*Vireo olivaceus*
Red-tailed Hawk	*Buteo jamaicensis*
Ruby-crowned Kinglet	*Regulus calendula*
Rufous-crowned Sparrow	*Aimophila ruficeps*
Scrub Jay	*Aphelocoma coerulescens*
Sparrow Species	*Emberizidae* sp.
Summer Tanager	*Piranga rubra*
Swainson's Hawk	*Buteo swainsoni*
Tufted Titmouse	*Parus bicolor*
Turkey Vulture	*Cathartes aura*
Verdin	*Auriparus flaviceps*
Wild Turkey	*Meleagris gallopavo*
Yellow-billed Cuckoo	*Coccyzus americanus*
Yellow Warbler	*Dendroica petechia*

APPENDIX

Field Data Forms

LCRA Bird Surveys Data Sheet

Observer(s)	Melanie Pavlas
Date (mo-da-yr)	3/21/03
Time (military, begin – end, hrs)	0730-1337
Site Visit #	1
Conditions (temp, wind, cloud cover, other)	0730: 49º F, W: 0 mph, clear 1337: 75º F, W: 0 mph, 3% cloud cover
Acres Surveyed	200

General Notes (trespass, public contact, stewardship issues, fencing or signage, other wildlife observations, oak wilt, storm damage, etc.)	Joe Miller along for first part of survey. Lots of new flagging about – ask SB. Vegetation: shin oak, little bluestem, cedar elm, live oak, ashe juniper, verbena, red oak (dominant dec. sp), texas persimmon, silk tassel

Male	Song Type	Female #	Juv #	Notes
1	A			Plot 1.
2	A			Plot 1. Countersinging w/GCWA male 3 (G3) and male off property
3	A			Plot 1. Countersinging w/G2 and male off property
4	A, chipping			Plot 1. Countersinging w/G5
5	B then A, chipping			Plot 1. Countersinging w/G4
6	A			Plot 2

LCRA Bird Surveys Data Sheet

Observer(s)	Melanie Pavlas
Date (mo-da-yr)	4/10/03
Time (military, begin – end, hrs)	0733-1221
Site Visit #	2
Conditions (temp, wind, cloud cover, other)	0733: 45º F, W: 0-4 mph, 5% cloud cover 1221: 75º F, W: 0-3 mph, clear
Acres Surveyed	200

General Notes (trespass, public contact, stewardship issues, fencing or signage, other wildlife observations, oak wilt, storm damage, etc.)	Very little activity. Found mountain bike trail on Plot 2 – probably not used for a few weeks?

Male	Song Type	Female #	Juv #	Notes
G5 (G3?)	B, chipping			Waypoint (WP) 30; flew in from across fenceline on adjacent property.

LCRA Bird Surveys Data Sheet

Observer(s)	Melanie Pavlas
Date (mo-da-yr)	4/18/03
Time (military, begin – end, hrs)	0632 - 1229
Site Visit #	3
Conditions (temp, wind, cloud cover, other)	0632: 68 degrees F, Wind: 0-15, with gusts to 20 mph, Overcast 1229: 82 degrees F, Wind: 0-15, mostly cloudy
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
4	A, B			WP18-20
NA	A, B			WP21; countersinging w/G3 & 2
3	A	1(chipping)		WP22; countersinging w/G outside property
2	A			Countersinging w/G outside property & G9
9	A			Countersinging w/G2
7	A			Plot 2
8	chipping			Plot 2

LCRA Bird Surveys Data Sheet

Observer(s)	Melanie Pavlas
Date (mo-da-yr)	4/24/03
Time (military, begin – end, hrs)	0636-1239
Site Visit #	4
Conditions (temp, wind, cloud cover, other)	0636: 70º F, W: 0 mph, overcast 1239: 80º F, W: 0-5 mph, clear
Acres Surveyed	200

General Notes (trespass, public contact, stewardship issues, fencing or signage, other wildlife observations, oak wilt, storm damage, etc.)	Found spear tip at 30 27.153N / 97 53.107W Found 4+ large fish (1+' long) at 30 26.892N / 97 52.919W in Long Hollow Creek.

Male	Song Type	Female #	Juv #	Notes
1	A/B			Waypoint 28
4	A			Waypoint 27
10	A			Waypoints 25-26
10	A			Waypoint 29

LCRA Bird Surveys Data Sheet

Observer(s)	Melanie Pavlas
Date (mo-da-yr)	4/30/03
Time (military, begin – end, hrs)	0637-1248
Site Visit #	5
Conditions (temp, wind, cloud cover, other)	0637: 69º F, W: 0-7 mph, cloudy, light rain on arrival, hazy 1036: sunshine and mostly cloudy 1248: 74º F, W: 0-4 mph, overcast
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
1	B			
2	A			WP30, near a dry grotto
3	B			
4	B			

LCRA Bird Surveys Data Sheet

Observer(s)	Melanie Pavlas
Date (mo-da-yr)	5/6/03
Time (military, begin – end, hrs)	0631-1232
Site Visit #	6
Conditions (temp, wind, cloud cover, other)	0631: 77º F, W: 0 mph, 100% overcast 0715: intermittent thunder 0745: thunder/lightening (surveying by vehicle) 0756: light rain, but birds still singing 0850: thunder/lightening, and light rain, birds still active 0915-1015: survey suspended due to weather 1207: thunder 1232: 83º F, W: 0-2 mph, mostly cloudy, thunder and light rain
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
7	A/B			WP47-48, Plot 2

LCRA Bird Surveys Data Sheet

Observer(s)	Melanie Pavlas
Date (mo-da-yr)	5/14/03
Time (military, begin – end, hrs)	0630-1234
Site Visit #	7
Conditions (temp, wind, cloud cover, other)	0630: 72º F, W: 0-8 mph with gusts to 20 mph, mostly cloudy 1234: 86º F, W: 0-10 mph, partly cloudy but sunny
Acres Surveyed	200

General Notes (trespass, public contact, stewardship issues, fencing or signage, other wildlife observations, oak wilt, storm damage, etc.)	Tina Arnold and Tobin Strickland attended.

Male	Song Type	Female #	Juv #	Notes
1	B			
2	A/B			Whistly intro.; 30 27.599N/97 52.180W 30 27.616N/97 52.113W
3	A, chipping			30 27.575N/97 52.238W
4	A			30 27.447N/97 52.399W
5	B			
11	A			