2007 Survey Report

McGregor Preserve
Travis County

Lower Colorado River Authority

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Introduction

The McGregor Preserve is a 363-acre tract owned by the Lower Colorado River Authority (LCRA) and a part of the Balcones Canyonlands Preserve system set aside for Golden-cheeked warblers (*Dendroica chrysoparia*, GCWA). The preserve is located on the east side of Lake Travis, north of Hippie Hollow and Comanche Trail and south of the Cypress Creek Arm of the lake. Residential developments border the west side and now most of the east side. A wooded tract that is also managed for the GCWA and owned by Travis County, borders the preserve on its northeastern corner.

McGregor consists of steep hillsides and canyons with some moderate slope and level areas on the hilltops and valley floors. Some karst features are present, but all features except for one, are considered epi-karst. Most of the land is heavily forested, the main three components being juniper (*Juniperus ashei*, cedar), live oak (*Quercus fusiformis*) and red oak (*Quercus buckleyi*, Texas oak). Some of the more exposed slopes are semi-open with small trees, most likely a result of the thin soil and harsh conditions.

The preserve has been surveyed several times in the past, with a wide spread in the number of warbler territories found. LCRA biologists surveyed the land in 1992, 1993 and 1994 with estimated numbers of 14, 18, and 22, respectively. In 2001 a group of surveyors, put together by Blanton & Associates Inc. and Turner Collie & Braden Inc., observed 29 territories. In 2004, personnel from SWCA Environmental Consultants returned a figure of 10 to 14. Ten of these territories were entirely within the preserve and 4 more territories were only partially on McGregor. Surveys conducted by LCRA employees in 2005 found 17-21 territories and in 2006, surveys located 12-15 territories on this property.

Methods

LCRA personnel conducted surveys in 2007 to determine the GCWA population status. Surveys roughly followed protocol established by the United States Fish and Wildlife Service (USFWS). This called for a minimum of four hours of survey time for every 100 acres of habitat per visit, with a minimum of five visits per site with five day intervals between visits.

McGregor preserve was surveyed six times for a total of 33.75 hours. The property was usually divided into two or three sections for surveying. The entire property was surveyed this season.

Surveys were conducted mostly by walking slowly through habitat while looking and listening for the target species. The routes walked and areas covered varied from survey to survey. When a target species was encountered the surveyor plotted the bird's location in the field on an aerial photograph and a waypoint was recorded on a hand-held GPS unit. If the position was uncertain, a waypoint was still taken using a hand-held GPS unit. These waypoints could later be accurately plotted and analyzed using computer software.

Weather conditions were recorded at the start and end of every survey day (Table 2). All bird species observed or heard were noted. A complete bird list compiled from the 2006 and 2007 surveys can be seen in Table 3.

Results

Golden-cheeked warblers were found on all site visits. As many as 10 males were seen on each visit. One female GCWA was observed this year on March 26th with two counter-singing male GCWAs. Approximately 16-19 territories were observed at McGregor during the 2007 survey season.

Although male and female Brown-headed cowbirds (*Molothrus ater*) were seen/heard throughout the preserve, no predation was observed.

Discussion

The number of territories observed this season was comparable to those recorded in 2005, which are higher than some survey years. The weather during these years may play a factor in the number of birds located. It is advisable to conduct a presence/absence survey on the property in 2008. Several years of data is a better indicator for population trends, therefore, before determining numbers are stable at McGregor, at least one or two more years of surveys should be conducted before skipping a season.

The McGregor Good Neighbor Program does not seem to have an adverse affect on warblers at this property. The opportunity to educate the public and the preserve neighbors is a valuable tool in land management. Having their observations is also a valuable tool for trespass awareness.

In 1976, Pulich identified most of the land around Lake Travis as Golden-cheek warbler habitat. These populations of GCWAs have fluctuated over time and throughout the development of this area. The 2006 survey year located fewer birds than the 2007 surveys, but there were other factors that could have affected these surveys. Construction noise from many new houses/buildings being built was present the entire survey season in 2006. By 2007, many of these new houses/buildings were completed. A study done in Canada (Friesen et al. 1995) also showed a decline in neo-tropical migrants in general in “urban forests.”

Heavy development along the borders of the preserve and trespass and encroachment by adjacent landowners should be addressed even though the populations appear to only fluctuate slightly over the last few years. Repeated urban pressure could cause these populations to decline permanently.

Table 1. Survey Hours

Date	Surveyor	Start Time	End Time	Total (hours)
March 15, 2007	PT	0735	1415	6.67
March 16, 2007	PT	0745	1400	6.25
March 26, 2007	PT	0745	1215	4.50
March 28, 2007	PT	0730	1450	6.33
April 13, 2007	PT	0730	1230	5.00
May 11, 2007	PT	0655	1155	5.00
			TOTAL	**33.75**

Table 2. Weather

Date	Time (start-end)	Temp. F (start-end)		Wind (start-end)		Sky (start-end) % cloud cover	
March 15, 2007	0735 – 1415	60	75	0	0	100%	30%
March 16, 2007	0745 – 1400	60	68	5-10	10-15	40%	80%
March 26, 2007	0745 – 1215	65	*	5-10	5-10	100%	100%
March 28, 2007	0730 - 1450	58	74	5-10	5-10	10%	40%
April 13, 2007	0730 – 1230	67	70	10-15	10-15	100%	*
May 11, 2007	0655 - 1155	65	80	0	10-15	0%	*

*information not recorded

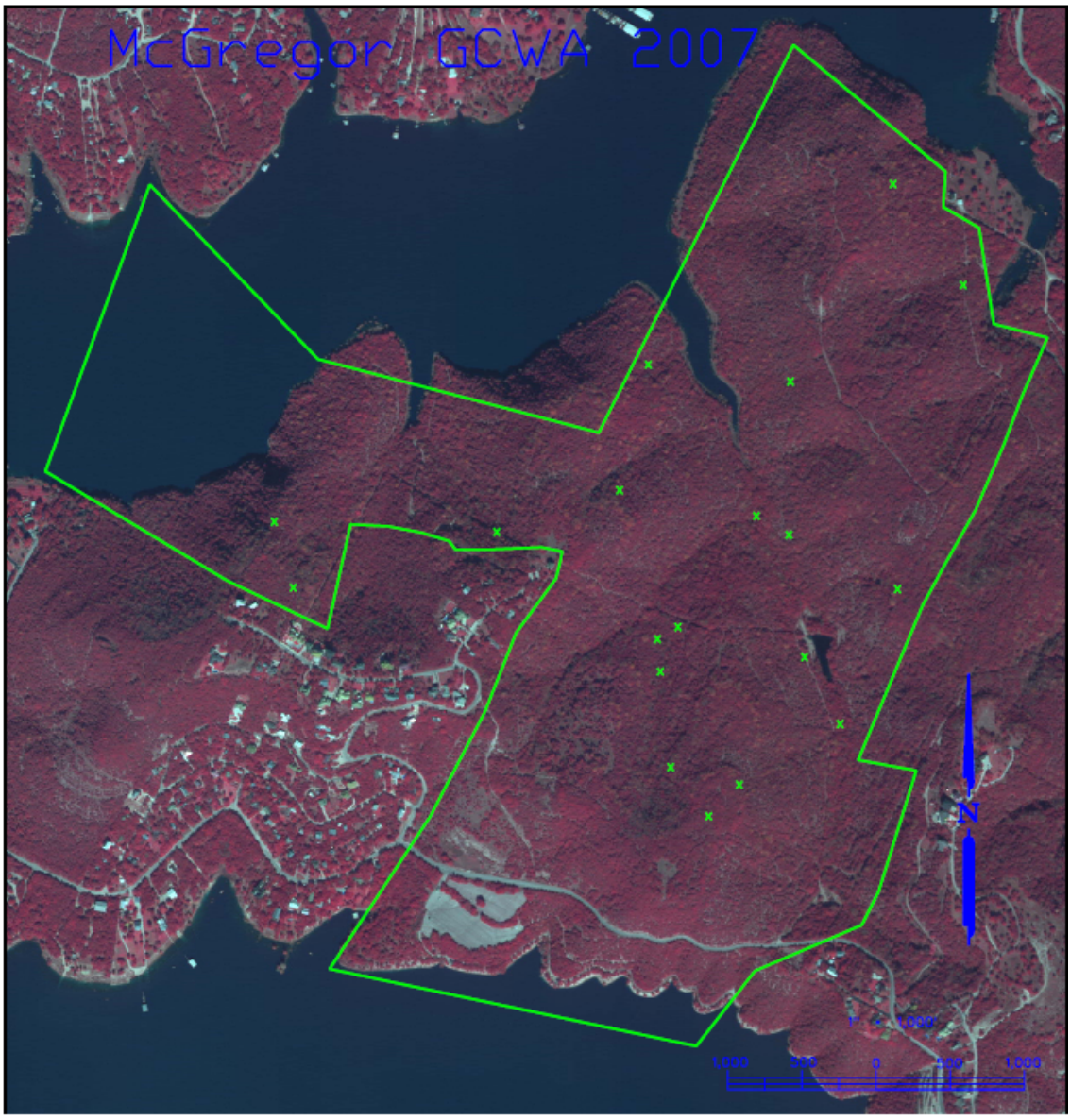
Table 3. McGregor bird list 2007

(p) – previous year record
(c) – current year record

Family	Genus/species	Common name
Anatidae	*Anas platyrhynchos*	Mallard (p)
	Anas discors	Blue-winged Teal (p)
Phasianidae	*Meleagris gallopavo*	Wild Turkey (p/c)
Odontophoridae	*Colinus virginianus*	Northern Bobwhite (p)
Ardeidae	*Ardea herodias*	Great Blue Heron (p/c)
Cathartidae	*Coragyps atratus*	Black Vulture (p)
	Cathartes aura	Turkey Vulture (p/c)

Family	Genus/species	Common name
Accipitridae	*Buteo lineatus*	Red-shouldered Hawk (p)
	Buteo jamaicensis	Red-tailed Hawk (p)
	Accipiter cooperii	Cooper's Hawk (p)
	Accipiter striatus	Sharp-shinned Hawk (p)
Gruidae	*Grus canadensis*	Sandhill Crane (p)
Charadriidae	*Charadrius vociferus*	Killdeer (p)
Laridae	*Larus pipixcan*	Franklin's Gull (p)
Columbidae	*Columbina passerina*	Common Ground Dove (p)
	Zenaida asiatica	White-winged Dove (p)
	Zenaida macroura	Mourning Dove (p/c)
Cuculidae	*Coccyzus americanus*	Yellow-billed Cuckoo (p)
	Geococcyx californianus	Greater Roadrunner (p)
Apodidae	*Chaetura pelagica*	Chimney Swift (p)
Trochilidae	*Archilochus alexandri*	Black-chinned Hummingbird (p)
Alcedinidae	*Ceryle alcyon*	Belted Kingfisher (p)
Picidae	*Melanerpes aurifrons*	Golden-fronted Woodpecker (p)
	Picoides scalaris	Ladder-backed Woodpecker (p)
Tyrannidae	*Sayornis phoebe*	Eastern Phoebe (p)
	Myiarchus cinerascens	Ash-throated Flycatcher (p)
	Tyrannus forficatus	Scissor-tailed Flycatcher (p)
	Myiarchus crinitus	Great-crested Flycatcher (p)
	Tyrannus verticalis	Western Kingbird (p)
Vireonidae	*Vireo griseus*	White-eyed Vireo (p)
Corvidae	*Aphelocoma californica*	Western Scrub-Jay (p/c)
	Cyanocitta cristata	Blue jay (p)
	Corvus brachyrhynchos	American Crow (p)
	Corvus corax	Common Raven (p)
Hirundinidae	*Progne subis*	Purple Martin (p)
	Petrochelidon pyrrhonota	Cliff Swallow (p)
	Hirundo rustica	Barn Swallow (p)
	Stelgidopteryx serripennis	Northern Rough-winged swallow (p)
Paridae	*Poecile carolinensis*	Carolina Chickadee (p/c)
	Baeolophus atricristatus	Black-crested Titmouse (p/c)
Remizidae	*Auriparus flaviceps*	Verdin (p)

Family	Genus/species	Common name
Troglodytidae	*Catherpes mexicanus*	Canyon Wren (p)
	Thryothorus ludovicianus	Carolina Wren (p/c)
	Thryomanes bewickii	Bewick's Wren (p/c)
Regulidae	*Regulus calendula*	Ruby-crowned Kinglet (p/c)
	Regulus satrapa	Golden-crowned Kinglet (c)
Sylviidae	*Polioptila caerulea*	Blue-grey Gnatcatcher (p/c)
Turdidae	*Catharus guttatus*	Hermit Thrush (p/c)
	Turdus migratorius	American Robin (p)
Mimidae	*Mimus polyglottos*	Northern Mockingbird (p)
Bombycillidae	*Bombycilla cedrorum*	Cedar Waxwing (p/c)
Parulidae	*Mniotilta varia*	Black-and-white warbler (p/c)
	Vermivora celata	Orange-crowned Warbler (p)
	Vermivora ruficapilla	Nashville Warbler (p)
	Dendroica coronata	Yellow-rumped Warbler (p/c)
	Dendroica chrysoparia	Golden-cheeked Warbler (p/c)
	Setophaga ruticilla	American Redstart (p)
Muscicapidae	*Catharus fuscenscens*	Veery (p)
Thraupidae	*Piranga rubra*	Summer Tanager (p/c)
Emberizidae	*Aimophila ruficeps*	Rufous-crowned Sparrow (p/c)
	Spizella passerina	Chipping Sparrow (p/c)
	Spizella pusilla	Dark-eyed Junco (p)
Cardinalidae	*Cardinalis cardinalis*	Northern Cardinal (p/c)
	Passerina ciris	Painted Bunting (p/c)
	Spiza americana	Dickcissel (p)
Icteridae	*Agelaius phoeniceus*	Red-winged Blackbird (p)
	Quiscalus quiscula	Common Grackle (p)
	Molothrus ater	Brown-headed Cowbird (p/c)
Fringillidae	*Carduelis psaltria*	American Goldfinch (p)
	Carpodacus mexicanus	House finch (p)
	Carduelis psaltria	Lesser Goldfinch (p/c)
Passeridae	*Passer doemesticus*	House Sparrow (p)


McGregor GCWA 2007
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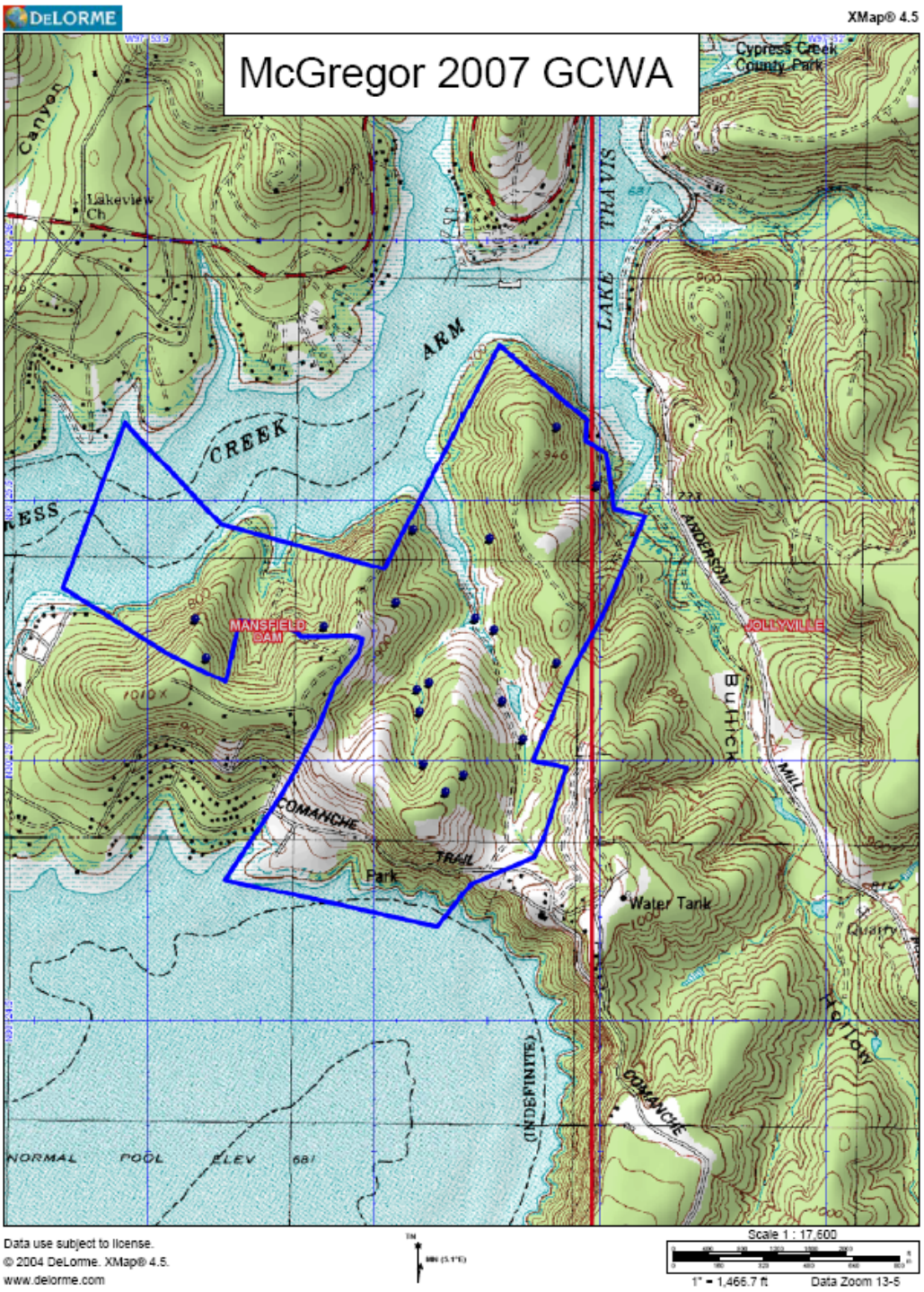
DELORME
XMap® 4.5
McGregor 2007 GCWA
Cypress Creek County Park
Canyon
Lakeview Ch
LAKE TRAVIS
ARM
CREEK
MANSFIELD DAM
JOLLYVILLE
ANDERSON
Buhick
MILL
COMANCHE
TRAIL
Park
Water Tank
Quarry
Hollow
COMANCHE
(INDEFINITE)
NORMAL POOL ELEV 681
Data use subject to license.
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www.delorme.com
Scale 1 : 17,600
1" = 1,466.7 ft
Data Zoom 13-5

Articles

Friesen, L.E., P.F.J. Engels, and R.J. Mackay. 1995. Effects of residential development on forest-dwelling neotropical migrant songbirds. Conservation Biology 9(6): 1408-1414.

Pulich, W.M. 1976. The Golden-cheeked warbler. Texas Parks and Wildlife Department, Austin, Texas.